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THESIS

DETECTING WEAPONS OF MASS DESTRUCTION TERRORISM

by

Frank A. LeHardy III

December 1997

Thesis Advisor:

Peter R. Lavoy

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DETECTING WEAPONS OF MASS DESTRUCTION TERRORISM

Frank A. LeHardy III
Lieutenant Commander, United States Navy
B.A., University of Florida, 1986

Submitted in partial fulfillment
of the requirements for the degree of

MASTER OF ARTS IN NATIONAL SECURITY AFFAIRS

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ABSTRACT

This thesis examines terrorist acts involving the use of weapons of mass destruction (WMD) against unsuspecting civilians by the Aum Shinrikyo and Rajneesh cults. The proliferation of WMD (i.e., nuclear, chemical, and biological weapons) has created a concern that terrorists might use WMD. Despite obvious signs, these groups were not identified as terrorists until after they committed terrorist attacks. This thesis identifies common characteristics of terrorists that have used WMD in the past and generates indicators of non-state actors that might commit WMD terrorism in the future. Deterring terrorists would be ideal, but given the bizarre value systems and unpredictable logic of terrorists, these efforts might be futile. The United States must prevent terrorists from committing WMD terrorism by denying them the ability to act. Identifying terrorists that have the potential to use WMD is critical. Future policies of the United States should focus on developing an integrated data system to identify and observe non-state actors that have apocalyptic prophecies, confront local authorities, and recruit people with advanced degrees. Officials also would be advised to monitor the purchases of materials connected with chemical or biological agents and to identify groups that seek information about WMD. Finally, the United States should develop methods for detecting WMD use during the research and development stages. After identifying intent, the United States will be better positioned to then intervene and prevent WMD terrorism.

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EXECUTIVE SUMMARY

The proliferation of weapons of mass destruction (WMD) is a serious threat to the United States. In the hands of terrorists, the use of nuclear, chemical, or biological weapons could be devastating. These weapons have the potential to kill thousands of innocent victims, degrade the environment, and affect future generations. Therefore, it is in the best interest of the United States to develop policies to deter non-state actors from using WMD. To successfully deter a non-state actor from committing WMD terrorism, the United States must identify the non-state actor before it acts.

This thesis examines terrorist acts perpetrated by the Aum Shinrikyo cult in Japan and the Rajneesh cult in Oregon involving the use of WMD. Both cults were able to manipulate its members to unconditionally accept the bizarre values of the cults, giving ideological justification to use WMD. Once the cults were able to alter the values of members, the cults were able to pursue its objectives through horrific means. As a result, both cults easily developed the motivation and capabilities to use WMD.

Despite obvious warning signs, these groups went unnoticed until after they committed terrorist attacks. Although these attacks surprised the world, there were numerous indications that these cults had the capacity to use WMD. If someone had been watching, they may have noticed the warning signals, giving authorities the ability to stop the cults before they acted. The Aum cult demonstrated many more signals of its intentions than the Rajneesh cult, but both cults did exhibit many of the same signals.

Common characteristics for both groups included many indicators that they had the

intention of committing WMD terrorism. Both cults proclaimed apocalyptic or cataclysmic prophecies and had numerous conflicts with the community which signaled violent tendencies. Other warning signs included the educational background of its members, the attempted assassination of numerous people, the purchase of materials required to make WMD from commercial sources, and the acquisition of equipment with dual-uses.

The Aum cult, in particular, developed a large WMD program that produced obvious warning signs. The cult developed large research and development capabilities in Japan and Australia. It was at these locations the cult tested the chemical and biological weapons it intended on using. As a result, odors and residue were persistent in the area. The cult also had committed a large sarin attack in Matsumoto prior to the attack on the Tokyo subway. Finally, the cult purchased hundreds of gas masks from California, just prior its terrorist attack.

Deterring terrorists from committing WMD terrorism would be ideal, but given the bizarre value systems and unpredictable logic of terrorists, this might prove futile. The United States should strive to prevent terrorists from committing WMD terrorism by denying them the ability to act. To prevent WMD terrorism in the future, the United States should seek to identify non-state actors that demonstrate the intention of using WMD. Identifying non-state actors that pose a threat is key to stopping non-state actors from resorting to WMD terrorism. The cases of Aum and Rajneesh indicate that warning signs would have been visible if the right tools had been put into place to see them.

More specifically, the United States should focus on developing an integrated data system to identify and observe non-state actors that have apocalyptic prophecies, confront local authorities, and recruit people with advanced degrees. Policies also should focus on monitoring

the purchases of materials connected with chemical or biological weapons and identifying groups that access information about WMD. Finally, the United States should develop methods for detecting WMD use during the research and development stages. Once terrorists are identified as having the intent to use WMD, steps can then be taken to stop them.

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I. INTRODUCTION

Terrorism is escalating to a point that U.S. citizens might soon have to choose between civil liberties and more intrusive forms of protection.

William S. Cohen, Secretary of Defense¹

A. BACKGROUND

During the Cold War, the focus of U.S. national security was deterring Soviet aggression. Since the collapse of the Soviet Union and the end of the Cold War, U.S. national security interests have changed. Unstable conditions still exist worldwide that potentially threaten the security of the United States. In the past, the United States focused primarily on threats posed by state actors, and gave very little attention to threats from non-state actors.

The international proliferation of weapons of mass destruction (WMD) – that is, nuclear, chemical, and biological weapons – has increased concerns terrorists might try to use WMD against the United States and its citizens. The materials, technology, and know-how required to make chemical and biological weapons are accessible to states and terrorists alike more than ever before. The real danger of WMD terrorism is that terrorist groups, now able to make and use the weapons, will choose to employ them.

Several incidents have given credibility to the growing concern about potential WMD use by terrorist organizations. These include the World Trade Center bombing (26 February 1993), the Rajneesh cult's use of biological weapons in Oregon (August and

¹Cited in Patrick Pexton, "Cohen Focuses Sights on Terrorism," *Navy Times*, 22 September 1997, 4.

September 1984), the release of nerve gas in a Tokyo subway by the Japanese cult Aum Shinrikyo (20 March 1995), the bombing of the Oklahoma City Ruirrah building (19 April 1995), and the bombing of the Khobar Towers in Saudi Arabia (25 June 1996). Steps must be taken to prevent even more serious incidents involving the use of WMD around the world and especially against the United States.²

WMD use against the United States could be devastating. These weapons have the potential to kill thousands, to spread worldwide epidemics that have no cure, to severely degrade the environment, cause widespread devastation, or to affect future generations. Due to the enormous implications of this threat, it is in the best interests of the United States to develop strategies to prevent or deter WMD terrorism. This does not mean that every effort should not be taken to handle the consequences of this type of terrorism; quite the contrary. Being able to manage a crisis is important and might influence a group's decision to use these weapons. It is the nearly unavoidable consequences of WMD terrorism that make prevention or deterrence necessary. Currently there is much uncertainty as to how to deter or prevent non-state actors from committing WMD terrorism.

There has not yet been any large catastrophic use of WMD by terrorists in the United States, but this does not mean it will not happen. The United States must prepare itself now for this potentially dangerous type of terrorism. One challenge is to identify non-state actors that have the potential to use these weapons. Another challenge is to

²President William J. Clinton, *A National Security Strategy for a New Century* (Washington, D.C.: U.S. Government Printing Office [GPO], Might 1997), 6-10.

understand what motivates these non-state actors to acquire and possibly to use nuclear, chemical, or biological weapons. By reviewing past terrorist acts involving the use of these weapons, the United States might be able to determine what non-state actors value and how their decision processes work. With this understanding the United States might be able to determine what could influence their decisions to use these weapons. The United States might then be able to develop policies to deter WMD terrorism.

The goals of this research are to evaluate why two terrorist groups used WMD and to determine what strategies the United States could undertake to deter WMD terrorism in the future. The principal research question is as follows: In what circumstances can the United States deter a non-state actor from using WMD? And, more specifically, how can the United States craft effective policies to deter WMD terrorism?

The remainder of this chapter discusses the definitions used throughout the thesis, examines deterrence theory with regard to state and non-state actors, and finally outlines the organization of the overall thesis.

B. DEFINITIONS

Terrorism and acts of terror have taken place for centuries, but clear definitions of terrorism are elusive. Terrorism is a form of violence that strikes the fear of many. Brian Jenkins acknowledges that the concept of terrorism is not precise, but there are functional definitions of terrorism. This study uses Jenkins' definition of terrorism as

“violence or the threat of violence calculated to create an atmosphere of fear and alarm - in a word, to terrorize - and thereby bring about some social or political change.”³

Chemical, biological, and nuclear weapons have rarely been the weapons of choice for terrorists in the past; however, the use of WMD by non-state actors in Tokyo and Oregon has created an “atmosphere of fear and alarm.” Despite the low number of casualties in these terrorist attacks, the number of casualties that could result from these weapons could be enormous. Traditionally, the lethality of terrorist attacks has been small. As Jenkins states, “simply killing a lot of people has seldom been a terrorist objective Terrorists operate on the principle of the minimum force necessary. They find it unnecessary to kill many, as long as killing a few suffices for their purposes.”⁴ The traditional weapons – involving bombs and guns – still exist, but the potential devastation and future implications of WMD terrorism outweigh the effects of a traditional terrorist arsenal.

The focus of this study is the employment of WMD as a means of terrorism. WMD terrorism involves the use of nuclear, chemical, or biological weapons by non-

³Brian M. Jenkins, “International Terrorism: The Other World War,” in *International Terrorism* ed., Charles W. Kegley, Jr. (New York: St. Martin’s Press, 1990), 28.

⁴Brian M. Jenkins, *The Likelihood of Nuclear Terrorism* (Santa Monica, Calif.: RAND Corp., P-7119, July 1986), 6.

state actors.⁵ These types of weapons are spreading, and in the hands of terrorists can be highly detrimental if used successfully.

For the purpose of this study, *nuclear weapons* are defined as devices that release nuclear energy in an explosive manner as the result of nuclear chain reactions involving the fission or fusion, or both, of atomic nuclei. A nuclear reaction does not have to occur to produce radioactive materials. A *radiological dispersal device (RDD)* is any explosive device that is intended to spread radioactive material in detonation. An improvised nuclear device can also be a RDD if the explosion does not cause a nuclear yield, but spreads radioactive materials.

Chemical weapons (CW) disperse *chemical agents* and manifest their effects on a living thing, man, animal, or plant by the virtue of their toxic chemical properties. They are categorized as blood and choking agents, blister agents, incapacitating agents, psychochemical, and nerve agents. Examples of chemical agents are sarin, soman, phosgene, and VX. These agents can appear as a vapor, aerosol, or liquid.

Biological weapons (BW) disperse *biological agents* (pathogens or toxins). A *biological agent* is a micro organism that causes disease in man, plants, or animals or causes the deterioration of material. Examples of these agents are - anthrax, Q-fever, botulism, and cholera. A pathogen is an organism causing disease, usually applied to

⁵The definitions of nuclear, chemical, and biological weapons are derived from the *Weapons of Mass Destruction Terms Handbook*, note all WMD definitions from here. *Weapons of Mass Destruction Terms Handbook* (Alexandria, Va: Defense Special Weapons Agency, 1997): chaps 1, 2, 3.

living agents. A toxin is a substance, produced in some cases by disease-causing microorganisms, which is toxic to other living organisms.

C. DETERRENCE

This section examines deterrence issues and is divided into three parts. The first defines deterrence and examines how deterrence theory can be applied to policy. The second discusses the deterrence concerns of the United States when dealing with state or non-state actors. The final part addresses denial and punishment strategies of deterrence.

1. Deterrence Theory

Theorists have contributed many definitions of deterrence. For example, Glen Snyder defines deterrence as “the power to dissuade as opposed to the power to coerce or compel.”⁶ Alexander George and Richard Smoke define deterrence as “simply the persuasion of one’s opponent [so] that the costs and/or risk of a given course of action he might take outweighs its benefits.”⁷ Patrick Morgan defines deterrence as “the use of threats of harm to prevent someone from doing something you do not want him to do.”⁸ Although there are many definitions of deterrence, precisely how to deter an actor has not been clearly defined.

⁶Glenn H. Snyder, *Deterrence and Defense: Toward a theory of National Security* (Princeton: Princeton University Press, 1961), 9.

⁷Alexander L. George and Richard Smoke, *Deterrence in American Foreign Policy: Theory and Practice* (New York: Columbia University Press, 1974), 11.

⁸Patrick M. Morgan, *Deterrence* (London: Sage Publications, 1977), 17.

Deterrence theory attempts to identify the conditions that make actual deterrence strategies succeed or fail. Understanding how deterrence works (or why it fails) is important in identifying practical measures to deter aggression. Successful deterrence requires knowing the values, motives, objectives, and capabilities of an actor. Deterrence fails if these elements are not identified.

Much of deterrence theory is based on the assumption that people act rationally, meaning actors make choices to act or not to act based on rational decision making. The decisions and behavior of an actor are based on a given set of goals or objectives. Different courses of action and their consequences are considered by actors and from this, choices of action or inaction are made to best maximize one's position.⁹

Understanding the decision making process of an actor can be problematic particularly if an actor is not rational. However, it is important to remember that actions often signal intent. Thus, detecting an actor and its intentions are required to craft effective deterrence strategies. Failure to develop policy that recognizes these warning signs welcomes failure.

2. Deterring State Actors or Non-State Actors

One of the main concerns of the United States is deterring states from using WMD. During the Cold War deterrence strategies focused on the Soviet Union. Containing the Communist threat and deterring war with the Soviets were the primary strands of U.S. security policy. In August 1949, following the first detonation of a Soviet atomic bomb, the United States began to give serious thought to nuclear deterrence, and

⁹Snyder, *Deterrence and Defense*, 18.

as a result, strategies such as massive retaliation, flexible response, and mutual assured destruction (MAD) evolved.¹⁰ These strategies might have prevented nuclear war between states but they did not stop limited conventional wars, such as the Vietnam War, the Korean War, and the Gulf War.

Times have changed, but the goal of protecting U.S. national interests and deterring aggression has not. Post-Cold War strategies now focus on deterring rogue regimes and non-state actors from using WMD. The threat of terrorism by non-state actors and, in particular, WMD terrorism poses a serious threat to the United States. The *National Security Strategy* outlined by President Clinton indicates that dangers from “weapons of mass destruction pose the greatest threat to global security.”¹¹ The consequences of this form of aggression could be devastating and therefore serious consideration needs to be given to deterrence of WMD terrorism by non-state actors.

Deterring non-state actors offers a new challenge. Before deterrence policies can be initiated, the non-state actor must be identified. Identifying a potential terrorist group before it acts is a tough challenge that requires extensive intelligence. Groups are not normally labeled as terrorist groups until they strike their first blow. By then, deterrence is too late.¹² The cases of Aum Shinrikyo and the Rajneesh cult committing WMD

¹⁰See David M. Keithly and Jack Meritt, *Nuclear Strategy, Arms Control, and the Future* (Boulder: Westview Press, 1985), 8-11; and Leon Sloss and Marc Dean Millot, “U.S. Nuclear Strategy in Evolution,” in *Dimensions of Military Strategy*, ed. George E. Thibault (Washington, D.C.: National Defense University, 1987), 66-67.

¹¹ *National Security Strategy*, 6.

¹²Martha Crenshaw, “Theories of Terrorism: Instrumental and Organizational Approaches,” in *Inside Terrorist Organizations*, ed. David C. Rapoport (New York:

terrorism are the prime examples. In both cases, the United States never identified these groups as potential terrorist groups capable of committing WMD terrorism and therefore deterrence strategies were never initiated. In order to deter future non-state actors from using WMD, the motives, values, and capabilities of the non-state actor must be identified and deterrence strategies developed against them.

3. Deterrence Strategies

Two types of deterrence strategies identified by theorists are deterrence by denial and deterrence by punishment.¹³ These strategies were developed in the context of nuclear deterrence strategies against state actors, but they can be applied to efforts to dissuade non-state actors from using WMD.

Deterrence by denial exists when an actor wants to initiate aggression but does not do so because he is convinced that he cannot achieve his objectives and therefore he has no reason to start aggression. Convincing the leaders of terrorist organizations that they would not be successful in committing a terrorist act might deter them from attempting such acts in the first place. Developing ways to render WMD attacks ineffective would make WMD less attractive as a terrorist tool.

Deterrence by punishment is a condition in which an actor does not start aggression because he realizes that if he did he would be attacked and would receive unacceptable damage in return. Convincing a terrorist group that it would be targeted

Columbia University Press, 1988), 18.

¹³Snyder, *Deterrence and Defense*, 14.

following an attack in such a way that its survival as an organization would be threatened might deter it from committing terrorism.¹⁴

The threat of WMD terrorism by non-state actors is real. Therefore, the need to deter WMD terrorism is critical. Denial strategies obviously are preferred due to the severe consequences of WMD terrorism. Identifying and apprehending terrorists after killing thousands, destroying the environment, or demolishing a city is not the optimal way to deal with WMD terrorism. Identifying terrorists that intend to commit WMD terrorism and denying their ability to strike is preferable. This thesis identifies warning signals and specific policies that could help to identify terrorists planning to use WMD. Once the potential WMD terrorist is identified, steps can then be taken to stop it. Of course, the United States must also be prepared to respond if denial strategies fail.

D. ORGANIZATION OF THESIS

This research analyzes two cases in which chemical and biological weapons were used against unsuspecting civilians by religious cults. Chapter II concerns the Tokyo-based cult Aum Shinrikyo, while Chapter III focuses on the 1980's Oregon-based Rajneesh cult. For a cult to use WMD, it must have the motivation and capability to do so. Both of these chapters focus on the motivations and capabilities of the non-state actors and how these motivations and capabilities affected their decisions to use

¹⁴Jerrold M. Post states that survival is the highest priority of a terrorist organization. See Jerrold M. Post, "Terrorist Psycho-logic: Terrorist Behavior as a Product of Psychological Forces," in *Origins of Terrorism: Psychologies, Ideologies, Theologies, and States of Mind*, ed., Walter Reich (Cambridge: Cambridge University Press, 1996), 38.

chemical and biological weapons. The factors to be reviewed include: the role of the leaders, their religious ideologies, the goals and beliefs of the cults, the followers, the financial resources of the cults, and the materials each cult used in its weapons programs.

Chapter IV compares and contrasts the motivations and structural characteristics of each group to find common characteristics which might identify the values of non-state actors and the indicators that a non-state actor might commit WMD terrorism. Once the values of a non-state actor are understood and its capabilities are exposed, deterrence strategies might be developed that target these values and capabilities.

Chapter V, the concluding chapter, discusses policy implications drawn from the case studies in chapters II and III and the findings of chapter IV. This chapter reviews current efforts of the United States to deal with WMD terrorism and outlines specific policy options the United States could pursue to deter WMD terrorism. This thesis proposes that in order to deter future WMD terrorist attacks, the United States should develop better monitoring capabilities and coordinate information systems to identify terrorists with the potential to use WMD. By identifying terrorists that demonstrate the intent or are amassing the capability to commit WMD terrorism, the United States might be able to intervene and possibly prevent or dissuade a non-state actor from committing WMD terrorism.

II. AUM SHINRIKYO'S ATTACK ON THE TOKYO SUBWAY

This cult, known as the Aum Shinrikyo, thus gained the distinction of becoming the first persons, other than a nation during wartime, to use chemical weapons on a major scale. I believe this attack signals the world has entered a new era.

Senator Sam Nunn¹⁵

On 20 March 1995 the Japanese cult Aum Shinrikyo unleashed sarin on the Tokyo subway killing 12 people and injuring 5,500.¹⁶ This terrorist attack is regarded as one of the most serious acts of WMD terrorism by a non-state actor. How did this happen and why did it happen? The purpose of this chapter is to analyze the cult and determine what motivated it to develop and use sarin (a chemical agent) and botulism toxins (a biological agent) on the people of Japan.

Despite Aum's large international membership, extreme financial worth, extensive weapons build up, and criminal events leading up to the Tokyo incident, the cult and its activities were unknown to the United States. By examining the motivations and the capabilities that led Aum to develop and use CW and BW, the United States

¹⁵Comments made by Senator Sam Nunn during 31 October 1995 Congressional Testimony Hearings, *Global Proliferation of Weapons of Mass Destruction* (Washington, D.C.: U.S. GPO, 1996), 5 .

¹⁶The chemical warfare agent sarin is a nerve gas that causes death mainly by inhalation and was discovered by the Germans in the 1930's . See Frank Barnaby, "Weapons of Mass Destruction: A Growing Threat in the 1990's," *Conflict Studies* 235 (October/November 1990): 19.

might be able to find indicators that could have tipped authorities to Aum's intentions and possibly could be used to deter or prevent future terrorist attacks.

This chapter is organized into four sections. The first evaluates the motivations and values of the cult that led to its decision to attempt to acquire a nuclear weapon, to develop BW, and to develop and use CW. Particular attention focuses on the Aum leader, the cult's ideology, its apocalyptic beliefs, and the cult's conflicts with society and authority. The second section addresses the capabilities that enabled Aum to acquire and use CW. The capabilities that are addressed are Aum's dedicated and intelligent manpower, its large financial capital, and the WMD programs. The combination of Aum's dedicated and intelligent manpower and large financial capital are the capabilities that enabled Aum to develop its WMD program. The third highlights a chronological review of events leading up to the Tokyo disaster. The final section is a summary of what motivated Aum to develop and use its deadly arsenal and identifies warning signs that can be used as indicators in the future.

A. MOTIVATIONS AND VALUES

1. The Charismatic Leader

Chizuo Matsumoto, the founder of the cult Aum Shinrikyo (translated to mean Aum Supreme Truth), was born in the village of Yatsushiro in 1955. From the beginning Matsumoto was obsessed with power and money. His desire was met with many failures, but he eventually was successful in building a close following that enabled him to

manipulate others into supporting the cult and carrying out criminal and terrorist activities.

Born with infantile glaucoma, Matsumoto was blind in one eye and with reduced vision in the other. As a result, he attended government schools for the blind. His partial sight gave him a slight advantage over his blind classmates and he used this advantage as a means to scam classmates out of money. Matsumoto saved this money and money he received from school grants and government scholarships. It is reported that he had amassed approximately \$30,000 by the time he graduated from high school.¹⁷ His desire for power was evident while in high school. He sought desperately to be class president but his violent nature scared his classmates and as a result they would not vote for him.

After high school, he still had his sights on being rich and powerful, but failure continued to follow him. His first goal was to attend Tokyo University, but he failed the entrance exam and went home bitter. Then he met Tomoko Ishii and married her in January of 1978. With the help of money from his wife's family, Matsumoto opened up the Matsumoto Acupuncture Clinic where he treated customers with acupuncture, yoga, and questionable herbal medicines. In 1982, he was arrested for fraud for these questionable herbal medicines. This led to the failure of his business and he filed for bankruptcy. Following bankruptcy, Matsumoto established a yoga training center called Aum Inc. that specialized in yoga and health drinks.

¹⁷David E. Kaplan and Andrew Marshall, *The Cult at the End of the World* (New York: Crown Publishers, 1996), 8.

Looking for enlightenment, Matsumoto went to the Himalayas. There he met with Hindu holy men and spoke with the great gurus of India and decided that his destiny would be in religion, not politics.¹⁸ Upon his return, his business began to prosper and through his business ventures Matsumoto began to recruit followers. Matsumoto claims he received a divine revelation which prompted him to change his name to Shoko Asahara.¹⁹

Now known as Asahara, he traveled to India during 1987 to receive a blessing from the Dalai Lama. He felt that this blessing would give him more credibility and would help recruit more followers. Once in India, he was able to meet with the Dalai Lama and have his picture taken with him. This was the publicity Asahara needed to claim that he had been blessed by the Dalai Lama. Following his proclaimed blessing, Asahara changed the name of his yoga schools to Aum Shinrikyo and Asahara's title became *sonshi*, the Japanese word for "guru."²⁰

During 1990, Asahara attempted to expand his power into the political arena. Forming the Supreme Truth Party, Asahara ran for office. As Kaplan and Marshall put it, "Aum took the same approach to politics as it did to religion: anything goes."²¹ This attempt to achieve political power ended in yet another failure and as a result he pursued

¹⁸Ibid., 11.

¹⁹Ibid., 12.

²⁰Ibid., 15.

²¹Ibid., 47.

greater religious power. The group once based on yoga and development of psychic powers now became religiously oriented and began to grow rapidly.

Shoko Asahara was now the leader of a small following. His quest for power and money began to take shape. He had become the leader of a religious cult that was growing, to form a religious ideology that enabled him to manipulate others to believe and follow his every word. His charisma, combined with his acquisition of tremendous wealth gave him the ability to commit horrendous crimes against humanity.

2. Religious Ideology

Aum's religious ideology combined the rituals of Buddhism and the teachings of Hinduism. This new ideology also incorporated yoga techniques, the Judeo-Christian concept of Armageddon, and the predictions of Nostradamus. The combination of these ideas and rituals shaped the Aum religious ideology. From this combination of religious ideologies grew a cult that justified murder, torture, a conventional arms build up, attempts to acquire nuclear weapons, and the development and use of biological and chemical weapons.

Following the teachings of Aum, cult members believed they could reach a state of enlightenment that would give them superpowers. The ability to levitate, see through walls, and slow down their breathing (which they believed would allow them to breathe radioactive air) were a few of these superpowers. Asahara claimed that because of his spiritual enlightenment he could levitate, and that eventually he would be able to fly. While sitting in the yoga position Asahara would use his legs to thrust himself into the air and then have his picture taken. He used these photos as proof of his claim.

In order to become enlightened, the new members had to give up their worldly possessions and participate in strange initiations. These initiations were not free. New members had to pay fees for each initiation ritual. These initiations included: drinking the blood of the guru, taking hallucinogenic drugs, and wearing special head sets that transmitted Asahara's brain waves.²² Starvation diets and self induced vomiting were also used.

Different levels of consciousness were developed by Asahara and, through his teachings, each member could attain these levels and grow spiritually. Asahara claimed that he had attained the highest level of consciousness and was therefore the most powerful. Many members caught up to Asahara in their spiritual development and, whenever this occurred, he would add new levels of conscience never allowing anyone to surpass his level.²³

The religious ideology that was developed by Asahara enabled him to gain and keep control over his followers. This gave Aum the ability to operate freely without harassment.

3. Apocalyptic Thinking

The primary belief of Aum Shinrikyo was that the end of the world would come at the end of the century. Following Armageddon, Asahara believed he would rule the world and that "from the rubble of this post-apocalyptic world [would] rise a race of

²²Kevin Rafferty, "Lost Disciples of a Doomsday God," *The Observer*, 3 March 1996, 25.

²³D.W. Brackett, *Holy Terror: Armageddon in Tokyo* (New York: Weatherhill Inc., 1996), 69.

superhumans - the followers of Shoko Asahara.”²⁴ Asahara also claimed he received a divine revelation that he was chosen to lead this race.

Aum’s apocalyptic beliefs were the basis of the religious ideology of the cult. Asahara was captivated by the impending end of the world talked about in western religions and the predictions of Nostradamus. The Buddhist and Hindu religion do not prophcize the end of the world, but Asahara cleverly chose Lord Shiva the Hindu god of destruction and reproduction as the chief deity of his cult. This enabled him to mold the belief that the end of the world was coming into the Buddhist and Hindu teachings.

The belief that the end of the world was coming was accepted by the followers of Aum. Aum’s followers were brainwashed into believing that they would survive the end of the world. Aum’s teachings proclaimed that during the holocaust, nine of ten would not survive but that he and his followers, because of their spiritual enlightenment and superpowers, would survive and lead the new world.

The initial prediction of Asahara was that a war would erupt between the United States and Japan sometime between 1996 and 1998. Asahara believed that by the end of the century there would be a nuclear war and the world would come to an end. The date of this prophecy changed over time, but not the basic belief that Armageddon was approaching. Asahara’s second prediction was that the end would come sometime in 1997. Eventually, Asahara changed this prediction and claimed that the end of the world would come in 1995. Since the end of the world was a reality, Asahara decided to hasten its arrival in order to establish his right place as leader of the new world. Asahara tried

²⁴Kaplan and Marshall, *The Cult at the End of the World*, 17.

to speed up the ultimate end of the world “by instigating the predicted war between Japan and the United States in November, 1995.”²⁵

4. Conflicts with Society and Authority

Asahara and Aum had numerous conflicts with society and authority. These conflicts were seen as threats to Asahara and his cult’s survival. As a result, Asahara turned against state authorities and societal norms. These threats became a motivating factor in the cult’s decision to use CW and BW.

One of the first conflicts between the cult and society occurred in 1989 between the cult and Tsutsumi Sakamoto. Sakamoto was an attorney that represented twenty-three parents who wanted their children out of the cult. This lawsuit represented a threat to the cult’s membership. In response, Aum kidnaped and murdered Sakamoto and his family. The remains of Sakamoto’s family were not discovered until after the Tokyo incident.

Political failure also became a source of discord for the cult. As mention previously, Asahara attempted to expand his power in the political arena. Asahara and 24 members of the cult ran for parliament in the February 1990 Japanese Diet election, but were unsuccessful. Of the 500,000 votes cast in Asahara’s district, he, only received 1,700 votes. In the defeat Asahara was not even able to capture the votes of all of his followers. Opposition to the cult began to grow after the elections. This was a major defeat for the cult and a key turning point in the cult’s dealings with society.

²⁵See Senator Sam Nunn, *Global Proliferation of Weapons of Mass Destruction*, 52.

The cult was also involved in legal disputes, including a land dispute in Matsumoto. During 1991, Aum purchased property in Matsumoto. When the local population found out about the cult's acquisition, a lawsuit was filed to block the sale. The sale of this property went to court and was put into the hands of three judges in May 1994. Indications were that Aum would lose and therefore might have to move out of the Matsumoto compound. As a result, the cult lashed out and decided to kill the three judges. On 27 June 1994, Aum conducted a sarin attack on the three judges in the town of Matsumoto. The attack failed to kill the judges, but resulted in the death of seven others and injured 200 innocent people. It was not until after the Tokyo incident that the cult was linked to this event.

In the meantime, Aum was getting bad press. Egawa Yokohama began to write about the members of Aum, its ideology, and theorized about links to Sakamoto's disappearance. The cult was furious about these articles. Aum decided to seek revenge for these damaging articles and attempted to assassinate Yokohama in September 1994 with phosgene, a chemical agent.²⁶

Aum's conflicts with society and Japanese authorities came to a head in March 1995. Asahara had learned that the Japanese government was planning a raid on Aum facilities throughout Japan. In order to divert authorities from raiding Aum facilities, Asahara decided to conduct the infamous sarin attack on the Tokyo subway on 20 March 1995. The cult believed that this attack would divert police attention from the cult.

²⁶Kaplan and Marshall, *The Cult at the End of the World*, 185-186.

These incidents demonstrate that Aum felt pressure from all aspects of society. These threats threatened the cult and its survival. The fear that the cult's survival was put in jeopardy by society motivated the cult to commit terrorist acts against society.

B. STRUCTURAL CHARACTERISTICS

The combination of Asahara's charismatic and delusional leadership with its apocalyptic millennial religious ideology gave Aum Shinrikyo the motivation to commit acts of terrorism. What it now needed was the capability to commit acts of terror. The cult decided that it would engage in a conventional, biological, chemical, and nuclear arsenals that it could use as a tool for their terror. The capability to develop and use these weapons did not happen overnight. The cult's large and dedicated manpower base and huge financial capital enabled them to attain the capability to build, develop, and test these weapons. These capabilities would have been evident had someone been watching!

1. Manpower

Aum's following was very large and included members that were highly intelligent and well educated. Membership consisted of technicians, scientists, lawyers and the educated elite of Japan.²⁷ In 1995, the following of Aum consisted of more than 40,000 people worldwide. The Japanese following claimed at least 10,000 Aum

²⁷David Winston, "Dealing with Criminal Religions: The Case of Om Supreme Truth," *The Christian Century*, 112, no. 22, 19 July 1995, 708.

members, and another 20,000 members in Russia. Aum also had followings in Australia, Germany, United States, and Sri Lanka.²⁸

Asahara established an identifiable hierarchy in the cult. The following identifies the key leaders and the typical followers of Aum. Particular attention is given to the roles they played in the development, production, and use of Aum's chemical and biological arsenal.

a. The Inner Circle

The inner circle of Asahara was highly intelligent, ruthless and made up of his closest and most trusted advisors. The credentials of this group consisted of scientists, technicians, college graduates, and ex-mafia hit men. This group was responsible for carrying out the orders of Asahara and the horrors of the cult. Their belief and dedication to Asahara were strong and unwavering, which enabled Asahara to order heinous crimes against humanity.

Asahara created an organizational structure that resembled the Japanese government with him sitting at the top as the Holy Monk Emperor. Aum set up twenty-four ministries paralleling the Japanese government and these ministries were headed by his trusted inner circle. The idea was that the Japanese government would be destroyed during Armageddon and that the cult would immediately step in and begin to rule following Armageddon. The following is a list of key members of Aum:²⁹

²⁸“A Cloud of Terror-And Suspicion,” *Newsweek*, 3 April 1995, 41.

²⁹This information was obtained from three sources. See Kaplan and Marshall, *The Cult at the End of the World*, 296-297; James Campbell “Weapons of Mass Destruction and Terrorism: Proliferation by Non-State Actors,” (Masters Thesis, Naval

- **Hideo Murai. Minister of Science and Technology. Succeeded by Masami Tsuchiya.** Was responsible for scientific experiments and possibly the production of the sarin nerve gas. Murai was a graduate of Osaka University with a degree in physics.
- **Seichi Endo. Health and Welfare Minister.** Responsible for chemical and biological research and development. Worked closely with the Minister of Science and Technology. He is a graduate of Kyoto University specializing in genetics and medicine.
- **Kiyohide Hayakawa. Minister of Construction.** Chief advisor to Asahara and oversaw Aum's growth worldwide. Responsible for the militarization of the cult. Graduated from Osaka Prefectural University with a Master's degree in architecture.
- **Yoshihiro Inoue. Intelligence Minister.** Responsible for gathering information on dissidents and countermeasures against the sect. Connected with infiltrating the Japanese Self Defense Forces (SDF).
- **Tomomitsu Niimi. Minister of Home Affairs.** Aum's security chief responsible for maintaining control over members.
- **Ikuo Hayashi. Treatment Minister.** A cardiovascular surgeon that ran Aum's hospital. He was involved in human experiments and administering drugs. Graduated from Keio Medical School.

b. Followers

As stated previously, Aum's following consisted of thousands. The cult consisted of members from many nationalities and had followings in four countries. Most members were young dropouts in their twenties and thirties. They were recruited by a number of methods preying on Asahara's yoga classes, colleges, computer stores,

Postgraduate School, Monterey, Calif., 1996), 15-18; and Nunn, "Global Proliferation of Weapons of Mass Destruction," 57.

and book stores. Recruitment was aggressively carried out by a division called the New Followers Agency (NFA).

The NFA targeted specific groups and individuals that had talents Aum could use. It is believed that the group gained access to a list of members of an elite force of the SDF. Aum attempted to recruit 100 members or former members of the SDF, but was only able to recruit twenty.³⁰ Two of these members were from an elite airborne regiment.³¹ It is also charged that Aum wire tapped the commander of the First Airborne Brigade. In addition to the SDF, the members of the Japanese police force were recruited. Aum also recruited people they could use for manual labor requirements.

Once members were in the cult anything and everything was done to keep them in. Some of the tactics used to keep members in the cult were the use of mind control, mind altering drugs, torture, beatings, confinement, murder, and threatening of family members lives. From the beginning, Asahara engaged in psychological manipulation, and coercion.³² Members became brainwashed to believe that Armageddon was coming and that if they left the cult they would no longer be enlightened and would not survive.

Members that did try to leave the cult were tortured and in some instances murdered. Despite this treatment, loyal followers continued to believe the teachings of

³⁰Nunn, "Global Proliferation of Weapons of Mass Destruction," 55.

³¹"Urban Terrorism - Chemical Warfare in Japan," *Jane's Intelligence Review*, November 1995, 521.

³²David Van Biema, "Prophet of Poison," *Time*, 3 April 1995, 31.

Aum. The followers believed they were the chosen ones and they would survive Armageddon. Those that did not follow the teachings of Aum or left Aum would not survive and therefore their lives meant nothing. These tactics enabled Aum to keep a large and devoted following.

2. Finances

The financial empire that Asahara built under the guise of Aum Shinrikyo was enormous, in fact “some put its financial capital as high as \$1.2 billion U.S. dollars.”³³ This huge financial capital enabled Aum to make its own chemical and biological production facilities. How did this cult acquire the financial capital to build and develop not only conventional arms, but weapons of mass destruction?

Like many other cults Aum’s financial growth had many sources. Some of these sources included initiation payments, relinquishment of all personal assets to the cult, legitimate businesses, and drug trafficking. As previously stated, followers were required to give up all of their assets including those of their family members. This included credit cards, calling cards, liquid and non-liquid assets. If new members did not comply, they and their families would be threatened. Aum also had many money making schemes, including selling his bath water, blood, and locks of his hair. Training courses and yoga courses were also offered at a high price.

Legitimate business ventures also greatly contributed to the financial success of the cult. Asahara opened more than thirty legitimate businesses in the United States, Japan, Australia, Taiwan, and Sri Lanka. These businesses included a fitness club, a

³³“Urban Terrorism,” 521.

dial-a-date service, and a baby-sitting organization.³⁴ Other businesses of Asahara were the Shimomura Chemical Company and the Hasegawa Chemical Company.³⁵ It was through these types of businesses that Aum was able to purchase the equipment and supplies used to build its arsenal.

Freedom of religious expression in Japan also gave Aum the ability to increase its capital worth. The Aum religion was registered as an official religion under the Japanese Corporation Law. This law gives religious organizations freedom to operate without the fear of repression or investigation. The law also gives tax breaks to all assets of the religion including businesses owned by the religion. Japanese authorities are able to investigate suspected crimes committed by religious groups, but because of the inherent fear of infringing on religious freedoms Aum was able to operate freely without being harassed. Aum reportedly used this freedom to extort \$9.2 million from one town on the condition that the cult move out of the town.³⁶

The use of illegal drugs, particularly LSD, was prevalent in the cult. The manufacturing and selling of LSD became another source of income for Aum. Aum began to sell mind altering drugs on the streets, which became known as “Aum stuff.”³⁷

³⁴David Winston, “Dealing with Criminal Religions: The Case of Om Supreme Truth,” *The Christian Century*, 19 July 1995, 708.

³⁵Nunn, “Global Proliferation of Weapons of Mass Destruction,” 86-87.

³⁶*Ibid.*, 58.

³⁷Kaplan and Marshall, *The Cult at the End of the World*, 165.

The large amount of liquid and capital assets of Aum enabled the cult to thrive. The tremendous wealth that was obtained by Aum enabled the cult to buy the supplies needed to build, make, test, and use chemical and biological weapons.

3. Materials

Aum developed an extensive and aggressive chemical and biological weapons program. It also established a large conventional arms cache and attempted to obtain nuclear warheads from Russia. What capabilities did Aum have and how did it get them?

a. Direction and Goals

The research and development of Aum's chemical and biological weapons program was lead by Hideo Murai and Masami Tsuchiya (the head of the cult's chemical team) and Seichi Endo (the head of Health and Welfare Ministry of Aum). The cult's attempt to develop a nuclear weapons program was led by the Construction Minister, Kiyohide Hayakawa. The weapons build up of Aum was very aggressive and a product of its apocalyptic beliefs. When asked why Aum developed large quantities of chemicals Murai is quoted as saying "the answer is simple. In every area of our activities, we need chemicals. If you consider we will be left with a wasteland after Armageddon, we need chemicals to fertilize the soil."³⁸ This statement demonstrates the delusional ideas of the cult.

³⁸Abigail Haworth, "Cults: Aum Shinrikyo: Sarin," *The Observer*, 14 Might 1995, 16.

b. Isolated Production Facilities

The cult isolated itself from the scrutiny of society which enabled the cult to keep its religious indoctrinations and WMD operations secret. This isolation enabled Asahara to use whatever methods necessary to control his followers and develop his weapons of terror. Under a cloud of secrecy, Aum was able to build laboratories that were not detected by Japanese authorities. “The Aum constructed its own chemical manufacturing complex under the guise of producing fertilizer.”³⁹ These labs were actually responsible for the research, development, production, and storage of its chemical and biological weapons.

Two such laboratories were built in Japan. The first at Mount Aso in central Kyushu and the second near the town of Kamikuishiki at the base of Mount Fuji. The laboratory at Mount Fuji was the site of one of the largest compounds of the cult. This compound, which housed more than 1,770 people, was built in 1988 and was surrounded by barbed wire and guard shacks located at each corner, giving it the appearance of a concentration camp. The compound was a “self-contained community. There were homes, workshops, offices, a medical clinic, a school, and places for religious training.”⁴⁰ Within the Kamikuishiki compound was Satyam No. 7, which was the production facility of Aum that developed its chemical and biological arsenal. The lab was concealed in a shrine to one of the cult’s icons.

³⁹John F. Sopko, “The Changing Proliferation Threat,” *Foreign Policy*, 105 (Winter 1996-1997), 13.

⁴⁰Kaplan and Marshall, *The Cult at the End of the World*, 60.

Aum also owned isolated property in Australia. Under the name of Mighta Posya Australia, Ltd. and Clarity Investments, Ltd., Aum bought a sheep farm in Banjawarn, Australia. Banjawarn is located approximately 375 miles northeast of Perth. The cult used this sight to mine uranium for its nuclear weapons program and to test some of its nerve agents. After the Tokyo incident, subsequent investigations found the carcasses of hundreds of sheep that had been killed by nerve gas.

The use of these remote locations enabled Aum to hide its weapons production facilities, storage areas, and testing areas. As a result, Aum was able to develop and test its biological and chemical weapons arsenal without being harassed. Despite having isolated laboratories, some of their operations did not go unnoticed. On numerous occasions, the citizens of Kamikuishiki complained of strange odors emitting from the compound. There were also reports that vegetation around the compound was dying and turning colors.

c. Technologies

The technologies that Aum needed to develop its chemical and biological programs were easily available.⁴¹ The precursors and equipment required to manufacture chemical weapons have both commercial and industrial uses, which enabled Aum to purchase them through companies it owned. The agents required for its biological weapons were also easy to obtain, for example, they can be cultured from living species

⁴¹More information on the technologies required for chemical and biological weapons and the availability of resources to acquire the capability to build and produce these weapons see U. S. Office of Technology Assessment, *Technologies Underlying Weapons of Mass Destruction* (Washington, D.C.:U.S. GPO, 1993), ch 2-3.

or food. The equipment that Aum used to develop these weapons was dual use technologies requiring no special export license or government approvals. Aum bought high-technology equipment, air-filtration equipment, computer software and hardware, laser technology used to measure plutonium, and even gas masks from the United States on two occasions.⁴²

The cost to build chemical and biological weapons is far less than nuclear weapons, biological weapons being the cheapest. Some call this the “the poor man’s nuclear weapon.” Given Aum’s financial worth it had enough resources to support its chemical and biological programs. The scientific data Aum needed to build these weapons came from open sources such as the Internet and libraries. These easily assessable technologies enabled Aum to construct a chemical and biological arsenal that shocked the world.

d. Nuclear Program

Aum considered developing its own nuclear weapon. So under the leadership of Hayakawa Aum purchased property in Australia along with the equipment necessary to mine uranium. The cult was successful in mining uranium, but attempts to enrich the uranium into weapons grade material was unsuccessful. Because of this failure, Asahara believed that buying a nuclear weapon would be cheaper than making one. He then began actively pursuing a nuclear warhead from Russia, but his attempt failed.

⁴²William Scally, *Reuter*, 31 October 1995.

e. Chemical and Biological Programs

The chemical and biological programs of Aum were extensive. During police raids on Aum's laboratories following the Tokyo incident, large quantities of chemicals were discovered. These chemicals included sodium cyanide, sodium fluoride, phosphorus trichloride, isopropyl alcohol and acetonitrile. Enough chemicals were discovered to kill thousands if not millions.⁴³ The cult conducted research on many chemical agents including Sarin, Soman, Tabun, VX, and possibly sodium cyanide and Q-fever. The cult used both VX and Sarin, but chose Sarin as its primary CW due to its ease of production and the availability of precursors.⁴⁴

Aum also established a BW program. During the investigation following the Tokyo incident, equipment was discovered that was capable of cultivating biological agents. Evidence suggests that the cult developed Botulism Toxin and might have been working on anthrax bacillus. David Kaplan and Andrew Marshall claim that the cult used botulism toxins as a weapon during an attempt to assassinate members of the Japanese Parliament.⁴⁵ Proof of the cult's development of anthrax has not been conclusive. The cult attempted to obtain the ebola virus in Africa, but was unsuccessful.

Despite the ability of Aum to establish both the chemical and biological programs, the refinement of its agents and weapons delivery systems were not sophisticated. Aum purchased a Russian helicopter that it wanted to use to deliver its

⁴³David Von Biem, "Prophet of Poison," 27.

⁴⁴Nunn, "Global Proliferation of Weapons of Mass Destruction," 60.

⁴⁵Kaplan and Marshall, *The Cult at the End of the World*, 58.

arsenals, but were never able to get the helicopter operational. The cult also purchased two remote controlled helicopters with crop dusting devices, but both helicopters were destroyed while learning how to use them. If Aum had been successful in the refinement of its agents and delivery systems, its arsenal could have been even more lethal.

C. CHRONOLOGY OF MAJOR EVENTS

The attack on the Tokyo subway was not the first criminal act of Aum Shinrikyo. Aum had committed many acts of terror prior to the events of 20 March 1995. The following table lists in chronological order key events in the development of the cult. These events show that this group was ruthless and not bound by conventional norms.

Table I. The Key Events of the Aum Shinrikyo cult.

Year	Event
1984	Yoga company, Aum Inc. is formed by Shoko Asahara.
July 1987	Aum Inc. is renamed Aum Shinrikyo.
May 1987	Asahara makes first prediction that Japan will rearm in 1992 and that nuclear war will break out around the end of the century
1989	The first murders are committed by the cult. Shuji Taguchi was assassinated for trying to leave the cult. Tsutsumi Sakamoto and his family are killed. Sakamoto was an attorney representing 23 parents who wanted their children out of the cult.
April 1990	The first use of biological weapons by the cult fails. The cult sprays botulinus toxin near the Japanese parliament.
October 1992	The cult attempts to obtain Ebola virus in Zaire.
June 1994	Aum executes sarin attack in Matsumoto in an attempt to kill three judges. This attempt fails, but seven people die and more than 200 are injured.
July 1994	Strong odor from Mount Fuji compound reported by 300 residents of Kamikuishiki. ⁴⁶ Later investigations by police find traces of sarin.
September 1994	The cult attempts to assassinate journalist Egawa Yokohama with phosgene for writing damaging articles about Aum.
December 1994	Aum's first successful use of chemical weapons. Tadahiro Hamaguchi is assassinated with VX gas. Aum attempts to assassinate Noburo Mizuno with VX gas, but is unsuccessful.
January 1995	Aum attempts another assassination. Hiroyuki Nagaoka, Head of the Association of the Victims of Aum Shinrikyo, is sprayed by cult member with VX gas. ⁴⁷
15 March 1995	Police find baggage fitted with vents and battery operated fans in a Tokyo subway station. ⁴⁸
20 March 1995	Aum attacks Tokyo subway with sarin. Twelve die and more than 5,500 are injured.

⁴⁶Abigal Haworth, "Cults," 16.

⁴⁷Nunn, "Global Proliferation of Weapons of Mass Destruction," 65.

⁴⁸*The Economist*, "Terror in Tokyo," 25 March 1995, 37.

D. SUMMARY

Aum Shinrikyo is a religious, millennial-type cult that was able to manipulate its members to believe the world was coming to an end and that they would survive. The cult also felt that its survival was threatened by society and authority. The apocalyptic rhetoric of Aum combined with its conflict with society gave it the motivation to use weapons of mass destruction.

Once Aum established a motivation to use CW and BW, its next step was to acquire the capability. The tremendous wealth Aum was able to aggregate enabled it to purchase the resources needed for its weapons programs. The size and education of Aum's membership enabled it to build a deadly arsenal. The availability of technologies also permitted Aum to acquire the capability to develop its WMD programs.

This case study shows that when a fanatical and delusional terrorist organization has the motive, the financial capital, the human capital, and the materials needed to commit WMD terrorism, the probability that it will commit WMD terrorism is high. This type of terrorist organization is hard to stop if steps are not taken prior to the organization's decision to use chemical, biological, or nuclear weapons as a means of terrorism.

There were many warning signs that Aum had the intention and the ability to use chemical and biological weapons prior to the Tokyo subway incident. The apocalyptic rhetoric, societal conflicts, and the political conflicts of Aum were all warning signs of violent tendencies. Other warning signs signaling the intent to use WMD were the educational background of its members, complaints of strange smells coming from the

compound, attempted assassinations with chemicals, the disappearance of people associated with the cult, the purchase of the substances required to make chemical and biological agents, the acquisition of sophisticated laboratory equipment, and the acquisition of helicopters and other devices capable of delivering chemical and biological agents. The most obvious warning signs that the cult intended to use WMD was the sarin attack in Matsumoto and the purchase of a large number of gas masks just prior to the Tokyo terrorist attack.

Despite these obvious warning signs, neither the Japanese police nor U.S. intelligence agencies detected the terrorist threat posed by Aum. The Aum cult displayed bizarre values and unpredictable logic, which would have made deterrence virtually impossible even if the group's WMD proclivities had been known in advance. However, had authorities picked up on any of these signs prior to the Tokyo subway incident, they would have discovered the massive arsenal of the cult and possibly could have prevented the cult from committing WMD terrorism.

After the Tokyo incident, many members of the cult were arrested and convicted. The Aum Shinrikyo cult, however, has lost its status as a religious group, but still exists.

III. RAJNEESHEE'S USE OF BIOLOGICAL AGENTS IN OREGON

The only documented [biological] attack in the United States involves the use of a biological agent, which occurred in Oregon in 1984 . . . [751] persons were effected; fortunately there were no fatalities.

John P. O'Neill⁴⁹

During September and October of 1984, members of the Rajneesh cult contaminated the salad bars of restaurants in Dalles, Oregon with *Salmonella Typhimurium*, a bacteria that causes food poisoning, causing 751 people to become ill. The Federal Bureau of Investigations (FBI) considers this act as the only documented case of biological terrorism conducted in the United States. This chapter examines the motivation behind the decision of the Rajneesh cult to use BW in Oregon.

The chapter is organized into four sections. The first evaluates the motivations of the cult and focuses on the key leaders, the ideology of the cult, and the objectives of the cult. The second section addresses the capabilities that gave the cult the capacity to develop its biological agent. The third section lists significant historical events leading up to October 1984. The final section summarizes the key reasons the cult resorted to biological terrorism and identifies warnings signs that can be used as indicators in the future.

⁴⁹Comments made during opening statement by John P. O'Neill, Supervisor Special Agent, Chief, Counter terrorism Section, Federal Bureau of Investigation, during 31 October 1995 Congressional Testimony Hearing, *Global Proliferation of Weapons of Mass Destruction*, 238.

A. MOTIVATIONS AND VALUES

1. The Leaders of the Rajneeshees

Mohan Chandra Rajneesh, called the “sex guru” by some, was the founder and leader of the Rajneesh cult that began in India. His ideology and powerful leadership enabled him to amass a huge following and a large fortune.

Born on 11 December 1931, in Madhya Pradesh, India, Rajneesh was raised by his maternal grandparents. He was very close to his grandfather who unfortunately died when he was only seven years old. His grandfather’s death left a lasting impression on him, causing him to become obsessed with death. As a result, he decided he would never again be close to anyone. This obsession with death would later end up playing a large role in his cult’s spiritual development.

As a child, Rajneesh was mischievous and continuously rebelled against authority. He played pranks on his friends and disregarded his teachers. Despite these personal attributes, he was very smart in school and loved to read and debate. This helped him in his oratorical skills, which would help him captivate people.

After high-school, Rajneesh received his Bachelor of Arts and Masters of Arts in philosophy in the late 1950's. During college he was searching for something in his life and claims to have become enlightened while sitting on a beach in Jabalpur on March 21, 1957.⁵⁰ This enlightenment was what caused him to begin his spiritual journey that resulted in the formation of his cult.

⁵⁰Kate Strelley and Robert D. San Souci, *The Ultimate Game: The Rise and Fall of Bhagwan Shree Rajneesh* (San Francisco: Harper and Row, 1987), 172.

In 1960, Rajneesh became a professor of philosophy at the University of Jabalpur. There he began to travel, lecture and develop a following. It was during this time that he perfected his meditation techniques that would later become his cult's trademark. By the end of the 1960's, Rajneesh began to proclaim that sex was divine and the first step toward enlightenment. In 1969, he established his first commune in Bombay, India.

In the early 1970's, Rajneesh started the Rajneesh Foundation and changed his name to Bhagwan Shree Rajneesh.⁵¹ Bhagwan means "the blessed one" or "god" and Shree means "Sir." He was a very intelligent and charismatic man who captivated many people. His lectures and beliefs were hypnotic to those that listened to him, and this enabled him to capture their desires for internal freedom. He taught his followers to surrender everything, but his own personal drive for power, paranoia, and accumulation of wealth contradicted this.

2. Rajneesh's Religious Ideology

Rajneesh openly criticized Hinduism, which shocked the people of India. He believed that all of the current religions were short in their fulfillment of spiritual enlightenment. Despite this criticism, Rajneesh based his ideology on a blend of Alchemy, Buddhism, Hinduism, and psychology. Rajneesh admired the teachings of many spiritual leaders including Christ and Buddha. His love for philosophy also influenced his ideology. Rajneesh extensively studied Georges Gurdjieff, a Russian philosopher who was rebellious against authority, sexually active with his followers, and continuously tested

⁵¹There is no consensus for this time. Some claim that he changed his name as early as 1968 while others claim as late as 1972.

the spiritual strength of his followers.⁵² Rajneesh claimed that by following him and his teachings, one could reach spiritual enlightenment. Rajneesh gave lectures, published books, and made tapes to teach others about achieving this spiritual enlightenment.

To reach enlightenment, Rajneesh taught his disciples that they must surrender everything and trust in him. Rajneesh followed a modified version of “sannyas,” a practice of the Hindu religion. In the tradition of Hinduism, sannyas was the act of renunciation where one would spend his remaining years meditating. Rajneesh went a step further than Hinduism. For Rajneesh, this meant complete and total surrender. This included his disciples surrendering themselves, their bodies, and all of their possessions. According to Rajneesh, renouncing all worldly possessions and relationships was necessary to be one with god.

Rajneesh believed that there were different levels of consciousness and there were different ways of reaching these levels. One way to achieve spiritual enlightenment was through sex. This idea originated from the Hindu belief of Tantra, which involved using sexual energy to achieve spiritual enlightenment. Rajneesh proclaimed that the body was just a possession and that people could reach a heightened awareness of themselves and each other through sexual contact.

Spiritual enlightenment could also be achieved through the meditation techniques he developed. One such technique was called “dynamic meditation.” This was not a silent and peaceful meditation. This technique was divided into five stages. Some of

⁵²Hugh Milne, *Bhagwan: The God That Failed* (New York: St Martin’s Press, 1986), 100.

the techniques in these stages involved rapid breathing, expressing emotions, screaming, jumping, shaking, taking your clothes off, and shouting the mantra. By performing this meditation technique, Rajneesh claimed followers would be able to witness their own body and mind. Once this meditation technique was perfected, a person's level of consciousness would change.

The ideology that was developed by Rajneesh was one of total surrender to him. This enabled him to establish control over the lives his followers. This control enabled him to build a large financial portfolio and live a lavish life style.

3. Growth and Formation of the Cult in Oregon

It was during the 1970's when Rajneesh initiated his first disciples and the cult's membership began to grow rapidly. The financial capital of Rajneesh also began to grow. With this success, Rajneesh opened a commune in Poona, India in 1974. By the late 70's, problems began to plague his commune. Charges of tax evasion, drug use by followers, and charges that followers were resorting to prostitution to pay for Rajneesh's lectures and meditation therapies were just a few of these problems. With legal disputes growing, Rajneesh decided to move his commune. Following searches in Australia and Pakistan, Rajneesh moved to the United States. In order to leave India, Rajneesh claimed that he needed back surgery which could only be done in the United States.

Prior to Rajneesh leaving India Ma Anand Sheela became a powerful figure in the cult. She was a key player in the cults move to the United States. For years Laxmi Thakarski Kuruwa was second to Rajneesh in the cult, but as time drew near for the cult's departure Sheela became Rajneesh's second in command. Rajneesh had become

more withdrawn from his cult's affairs opening the door for Sheela to establish a more powerful grip on the cult and its operations.

Rajneesh, along with Sheela, arrived in New Jersey in 1981. While Rajneesh was in New Jersey, Sheela searched the United States for a sight to build their new commune. For the sum of six million dollars, the cult bought the "Big Muddy" ranch located in a desert of Oregon. The 64,000 acre ranch was located in Wasco and Jefferson counties near the city of Antelope. With the assistance of his followers, Rajneesh immediately began to build a large compound on the ranch.

It wasn't long before Rajneesh's cult began to have disputes with the people of Antelope. These legal troubles began to plague Rajneesh, his leadership, and his commune. Sheela was loyal to Rajneesh in the beginning, but following the legal controversies of the cult her loyalty to Rajneesh faded. There are two possible explanations for this. First, while Sheela managed the commune she became obsessed with power. When Rajneesh broke his vow of silence and became more active in the commune, Sheela felt threatened. The second reason could possibly be the failure of their spiritual love affair.⁵³ While the cause is unclear, the tension between them became obvious following the events of 1984.

By 1984 Sheela had become a powerful figure in the cult. Rajneesh had commented that she developed a "gang of fascists" and turned the commune into a "concentration camp." Sheela had complete control over the commune and had earned

⁵³"Guru's Former Top Aide Labels it Gigantic Con," *Chicago Tribune*, 5 November 1985, C-4.

nicknames such as “foul mouth Sheela” and “pistol packing mom.” As the problems with U.S. authorities and the citizens of Oregon mounted, she devised a plan to manipulate county elections by using biological agents.

4. The Cult’s Quest for Political Power

From the beginning, the cult and the people of Oregon were in conflict. One of the primary goals of the Rajneesh cult was to build a new commune in the United States to support its growth, but conflicts that existed between the cult and the people of the City of Antelope, Wasco County. In addition, the U.S. Immigration and Naturalization Service (INS) threatened its expansion.

These threats to the cult’s growth and the conflicts it faced were perceived as a threat to its survival. In order to survive, the cult decided it needed to gain political power in the town and the county. The problem that faced the cult was that it did not have enough political leverage. The drive for political power to ensure the growth and survival of the cult, ultimately drove the cult to commit acts of violence.

The leaders of the cult felt threatened by the city of Antelope. From the beginning, the people of Oregon, and in particular the people of Antelope, disliked and feared the cult. Numerous legal disputes ranging from harassment to libel erupted between the cult and the people of Antelope. Prior to the cult’s purchase of the ranch in Oregon, they did not review the zoning or land use laws in Oregon. These laws prevented the cult from building freely on the ranch. Since the people of Antelope did not like the cult, they tried to block the cult from building on the ranch.

In order to stifle this problem, the cult decided to take over the town of Antelope by buying property and registering members to vote. The population of Antelope consisted of forty people who were mainly retirees, and these residents did not have the resources to fight the cult. As a result, the cult was able to out-maneuver the residents of Antelope during the 1982 elections and win five of six seats in the city's town council.⁵⁴

At the same time, the INS was investigating the cult. This was seen as another threat to the cult's existence. They were investigated for immigration fraud, and in response, the cult began to arrange marriages so its members would not face deportation. Rajneesh was subsequently denied permanent residence status as a result of these investigations.

During 1982 another threat to the cult arose. The cult had received permission from the county to incorporate the city of Rajneeshpuram on the ranch. The cult thought this would help solve its zoning problems, but its problems were not over. The incorporation of Rajneeshpuram met resistance when the Oregon Attorney General Dave Frohnmichter claimed that the incorporation of the city violated the separation of church and state. The Oregon Court of Appeals ruled that the incorporation was invalid and the issue was sent back to the county commissioners.⁵⁵

In order to build buildings and develop in their city, the Rajneeshees had to get building permits. These permits were approved by the Wasco County Commission. The

⁵⁴“The Bhagwhanees in Oregon,” *San Diego Union-Tribune*, 17 June 1986, C-5.

⁵⁵Laura Parker, “Guru Recruits Drifters; Take Over by Outsiders Feared,” *Washington Post*, 25 September 1984, A-1.

animosity that had developed between the cult, Antelope, Wasco County, and the INS had made it difficult for the cult to get its permits.

With elections coming up in November of 1984, Ma Anand Sheela (Rajneesh's second in command) believed they needed to take over the Wasco County Commission in order to shed some of its problems. Wasco County had approximately 12,000 registered voters at that time and the cult consisted of approximately 3,000 people eligible to vote. The cult did not have enough voting power to win the elections so Sheela devised plans that would ensure they could muster enough support to win elections.

The first plan involved the Share-a-Home project where homeless people were bussed in and registered to vote. The goal was to raise 3,000 new voters for their cause.⁵⁶ These voters, combined with the cult's registered voters, would give the cult a total of 6,000 votes. This was still not enough to outvote Wasco County's 12,000 citizens. The second plan was to cause a low voter turn-out. Sheela, along with Ma Anand Puja, the medical nurse, planned to get voters sick in the city of Dalles, Oregon just prior to election day by poisoning the town's drinking water with *Salmonella typhimurium*.⁵⁷ On election day, poor voter turn-out by the people of Wasco County combined with the 6,000 votes from Rajneesh supporters, would allow the cult to win the seats it needed to

⁵⁶Laura Parker, "Guru Recruits Drifters; Take Over by Outsiders Feared," A-1.

⁵⁷T. J. Török, R. V. Tauxe, R. P. Wise, J. R. Livengood, R Sokolow, S Mauvais, K. A. Birkness, M.R. Skeels, J. M. Horan, L. R. Foster, "A Large Community Outbreak of Salmonellosis Caused by Intentional Contamination of Restaurant Salad Bars," *Journal of the American Medical Association*, 6 August 1997, 393.

take over the county commission. With control of the county commission, the cult believed its problems would be over.

As the election drew near, Sheela decided to test the plan by contaminating 22 of 38 restaurants in Dalles with the biological agent.⁵⁸ As a result, 751 people fell ill. It was not known until about a year later that the cult was responsible for the contamination. Despite the success of the contamination, the plan fell apart. The homeless were found ineligible to vote and the cult conceded that it would not be able to win the elections without their votes. As a result, the cult abandoned the idea of poisoning the city of Dalles just prior to the election.

As a result of these problems and charges of immigration fraud, Rajneesh was fined \$400,000 and asked to leave the country. Rajneesh left the country in 1985 and returned to India where he continued to teach his beliefs. Upon his departure the commune in Oregon fell apart. Until his death on January 19, 1990, Bhagwan Shree Rajneesh claimed he had no knowledge of the cults plan or use of *Salmonella typhimurium*. Sheela, on the other hand, served two years in federal prison for several crimes including conspiracy to commit murder, arranging sham marriages, setting fire to a county office, wiretapping, and poisoning the people of Dalles with *Salmonella typhimurium*.

5. Martyrdom and Cataclysmic Prophecies

The violent confrontations of the cult supported Rajneesh's rhetoric of martyrdom and cataclysmic prophecies. Rajneesh believed that from his death a new

⁵⁸Ibid., 389-95.

“superman” would arise and that he had to transform the consciousness of man to prepare man for the future. Rajneesh also predicted that there would be floods, volcanic eruptions, and nuclear war in the future. Despite the gloomy future, the transformed followers of the cult would form a brighter future.⁵⁹

The cult believed that its values and beliefs were the only legitimate ideals. The cult was prepared to defend these ideals at all costs. Sheela is quoted as saying “we are here in Oregon to stay at whatever the cost. If that means that some of our blood is spilled, or some of our property is vandalized, then this is the price we are prepared to pay.”⁶⁰

B. STRUCTURAL CHARACTERISTICS

The claim that Rajneesh knew nothing about Sheela’s scheme to infect voters with biological agents is questionable given the control he had over the cult. The possibility that Sheela acted without the knowledge of Rajneesh is, however, immaterial. The conflicts that occurred between the cult and the community gave the cults other leaders, Sheela and Puja, motive to commit biological terrorism. The cult had the motive to commit biological terrorism, and all the cult needed was the ability to commit biological terrorism. The manpower and financial capital of the cult enabled the cult to develop a simple biological weapon.

⁵⁹Frances Fitzgerald, *Cities on a Hill: A Journey Through Contemporary American Cultures* (New York: Simon and Schuster, 1986), 337-43.

⁶⁰*Ibid.*, 337.

1. Manpower

Rajneesh's following was quite large and consisted of intelligent and well-educated people. The membership consisted of accountants, doctors, lawyers, and professors.⁶¹ Rajneesh initially attracted members from India. As his popularity increased in the 1970's, he began to recruit members worldwide and at one time claimed he had 500,000 members.⁶² Reportedly, the Oregon compound was home to as many 4,000 followers, but only 3,000 in 1984.⁶³ The following two sections will review the roles the leaders and followers had in the planning, development, and use of biological agents.

a. The Inner Circle

Due to its size and diverse operations, the Rajneesh cult was broken down by different departments. The heads of these departments were handpicked and highly trusted by Rajneesh. Most of the leaders were very intelligent and some had formal college education.

As mentioned previously, Sheela had tremendous power in the cult and therefore controlled the inner circle. The actual role, if any, the inner circle played in the biological terrorism is unknown. What is known, however, is that nurse Puja was under the direction of Sheela. Puja was in charge of the commune's medical clinic that

⁶¹Ibid., 249.

⁶²Burt A. Folkart, "Bhagwan Shree Rajneesh," *Los Angeles Times*, 20 January 1990, A-34.

⁶³"Investigators Wonder About Guru's Riches," *Seattle Times*, 28 January 1990, B-2.

produced the biological agents used in the conspiracy. Sheela and the nurse Ma Anand Puja were the only cult members ever charged and sentenced for the food poisoning incident. The rest of the members of the inner circle committed other crimes. Following is a list of key members of the Rajneesh cult and some of the atrocities they committed:⁶⁴

- **Ma Shati Bhadra. Rajneesh Foundation Treasurer.** Bhadra organized and managed the church worldwide and was also the Vice President of the Medical Corp. She was convicted of conspiracy to murder Charles Turner, the Oregon State Attorney
- **Ma Prem Savita. Head Accountant for the Ranch.** She was in charge of the commune's finances and was also an advisor to Bhadra. She holds a bachelors degree in Accounting. She was convicted of conspiracy to murder Turner.
- **Ma Anand Su. Rajneesh Investment Corporation President.** She was in charge of the investment corporation, which was a subsidiary of the Rajneesh Foundation. She was also convicted of conspiracy to murder Turner.
- **Swami Krishna Deva. Former Mayor of Rajneeshpuram.** He was a former city planner for San Mateo and San Luis Obispo, CA. He received his B.A. from the University of Michigan and M.A. from the Harvard Graduate School of Design. He plead guilty to racketeering.
- **Ma Voga Vidya. President of Rajneesh Neo-Sannayas International Commune.** Vidya was the president of the ranch in Oregon. She was a systems analyst for IBM and Univac. She graduated from the University of South Africa with a B.S. in math and

⁶⁴This information was gathered from books, newspaper accounts, and the Internet. See Milne, *Bhagwan: The God That Failed*; Carol M. Ostrom, "10 Years Later, Bitterness Endures at Rancho Rajneesh," *Seattle Times*, 11 December 1995, A-1; and Fitzgerald, *Cities on a Hill*.

also attended the University of London studying computers. She was also charged with conspiracy to murder Turner.

b. Followers

The followers of Rajneesh were under the total control of Rajneesh and his leaders. They were completely fascinated and mesmerized by him. His lectures and meditation techniques seemed to give followers the internal release they were looking for. The followers became brainwashed into believing that surrendering their worldly possessions and engaging in sex with whoever would give them spiritual enlightenment. This control enabled the cult to grow, increasing its human resources and financial wealth while disregarding the well-being of the followers.

Rajneesh favored the rich and influential as potential followers. Many followers were professionals, such as doctors, lawyers, and architects. In some instances, if a follower met these characteristics, they would receive better treatment or more prestigious positions. Most followers that joined were in their twenties and thirties, approximately 60 percent were women, 75 percent had attended college, and most were white and came from the West Coast.⁶⁵

Living conditions for the followers were rough. Many of the followers on the Oregon ranch were given back-breaking work on the compound. Since the camp was built in a desolate area, it did not have the necessary resources to sustain a large cult. The followers worked twelve long hours a day to establish a self sustaining community.

⁶⁵Fitzgerald, *Cities on a Hill*, 264.

Many followers fell ill or were injured during the cult's construction. The water system used by the cult was unreliable. Therefore, dysentery and related health problems developed.

Since the cult had been incorporated as a city, it was able to establish its own police force. This police force was in reality a security force for Rajneesh. The security force carried uzis and maintained a tight vigilance on the followers and visitors to the compound. People were frisked and passed through metal detectors before lectures and meetings with Rajneesh.

Rajneesh told his followers whom they could have sex with and whom they would live with. They were also directed to participate in group sex. The spread of STDs became a large problem on the compound. As the threat of AIDS surfaced in the 1980's, the cult responded by issuing sex rules. Some of the rules included the requirement that followers refrain from kissing, men must wear condoms, and all must wear rubber gloves while having sex. The cult believed this would help prevent the spread of STDs.

The cult did not want women to have children. If followers had children, their children were taken from their mothers and put in common living quarters. The children were raised and taught in these quarters. In order to prevent more births, Rajneesh began to require sterilization for women and vasectomies for men.

Despite the cult's control over its followers, the substandard working conditions, and the health problems experienced by its followers, Rajneesh's following was quite large.

2. Finances

The Rajneesh cult amassed a huge fortune in India prior to coming to the United States. The actual size of the cult's fortune is unknown, but it was probably worth millions. This can be deduced from the fact that Rajneesh purchased the ranch for six million dollars and spent \$100 million transforming the desert ranch into green useable land.⁶⁶ The huge fleet of approximately 90 Rolls-Royces that Rajneesh was well known for also demonstrates the extreme wealth enjoyed by the cult. The wealth of the cult came from the Rajneesh Foundation International and the Rajneesh Investment Corporation.

The Rajneesh Foundation International was the legal title of the church and benefited from a church's tax exempt status. This foundation raised money by selling books and tapes about Rajneesh, his beliefs, and ways of spiritual enlightenment. Money was also received from individual donations and proceeds from his lectures.

The Rajneesh Investment Corporation was a subsidiary of the Rajneesh Foundation International, but did not benefit from tax exempt status. This was the business side of the cult. Rajneesh owned restaurants, primarily vegetarian restaurants, in Antelope, Portland, and Dalles. Rajneesh also owned a hotel and a disco nightclub in Portland. Most of these businesses were operated by his disciples. The commune in Rajneeshpuram, legally known as Rajneesh Neo-Sannyas International Commune, was operated under the investment corporation.

⁶⁶“ This is the Place,” *Economist*, 29 September 1984, 28.

The large financial capital built by Rajneesh was quite significant. This fortune gave the cult more assets than were required to develop its biological capability. Using its large financial capital, the cult was able to develop the means to buy and cultivate a small biological weapons program.

3. Materials

a. Direction and Goals

As mention previously, Sheela was the mastermind of the cult's use of biological agents. Feeling threatened by Oregonians, the cult decided that it could use biological agents to inflict the people of Dalles with an illness so they could not vote on election day. Nurse Puja was responsible for the development of the biological agents required for the operation. The medical clinic on the compound contained a medical laboratory that Puja used to make the agents.

b. Facilities

Rajneeshpuram was an isolated and self sustaining community built by the cult. It contained amenities necessary to run a small town. The cult built facilities that included a meeting hall, hotel, theater, library, airport, schools, shopping mall, and a medical center. The cult also developed its own water system, farms, and police force.

The medical center was large and employed up to five physicians and a nursing staff. Puja was in charge of the medical center. The center also contained a dental clinic and research facilities. The research facility consisted of a small lab that was used to conduct research on the STD's, particularly AIDS, that threatened the commune. This lab was also used to produce the biological agents used by the cult.

c. Biological Programs

During the 1980's when this event occurred, the advances in biotechnology were not what they are today, but the ability to obtain and culture simple biological agents, such as the one used by the Rajneesh cult was possible. *Salmonella typhimurium* can “be easily obtained from clinical isolates or from raw foods of animal origin available in grocery stores.”⁶⁷ Under the auspices of a medical lab, the cult was able to purchase *Salmonella typhimurium* from commercial sources prior to the food-poisoning incident.

One unopened test tube of *Salmonella typhimurium* was found by the FBI during their investigations of the cults involvement with the Dalles incident.⁶⁸ Puja, using her training as a nurse, was able to cultivate more *S. typhimurium* in the laboratory for the operation. The cult did not develop a sophisticated weapon delivery system, but this was not necessary. Spreading of this type of agent can be done simply by pouring the agent out of a test tube.

C. CHRONOLOGY OF MAJOR EVENTS

The cults use of a biological agent to manipulate voting in Oregon was not the first criminal act committed by the cult. The following table lists key events prior to and after the cult’s contamination of the Dalles’ restaurants. These events demonstrate that the cult had resorted to unconventional means to satisfy their objectives.

⁶⁷T. J. Török, “A Large Community Outbreak of Salmonellosis,” 394.

⁶⁸Ibid., 393.

Table II. The Key Events of the Rajneesh Cult.

Year	Event
1970's	Rajneesh Foundation is formed.
1981	The cult moves to United States and forms Rajneesh International.
Jul. & Aug. 1981	The cult buys the Big Muddy Ranch in Oregon for six million dollars and moves to ranch.
1982	The city of Rajneeshpuram incorporated and the city of Antelope is taken over by the Rajneeshees. Legal disputes between the cult and the city begin to increase. Rajneeshpuram has difficulties obtaining building permits from Wasco County.
1984	Cult members wiretap phones on compound and set up sham marriages to prevent deportation of cult members.
1984	Plans were made by the cult to contaminate the Dalles, Oregon water supply. One supermarket in Dalles was contaminated with <i>S. typhimurium</i> .
Sept. 1984	The Share-a-Home program begins in an attempt to increase the voting strength of the cult. ⁶⁹
1984	Attempted poisoning of Manuel Sullivan, Jefferson County District Attorney and William Hulse, Wasco County Commissioner.
Sept. - Oct. 1984	22 of 38 restaurants in Dalles, Oregon contaminated with <i>S. typhimurium</i> and 751 people become ill.
Jan. 1985	Wasco County Planning Department Office, which housed the files on the Rajneesh cult was set on fire. ⁷⁰
Jul. 1985	Devaraj, personal physician of Rajneesh becomes ill in an attempted murder following injection of unknown substance. ⁷¹
1985	Cult members charged with conspiracy to murder U.S. Attorney Charles Turner. ⁷²
1985	Rajneesh leaves the country and the commune is disbanded.

⁶⁹"Commune Recruits Homeless in Chicago," *United Press International*, 15 September 1984.

⁷⁰Hugh Milne, *Bhagwan: The God That Failed*, 314.

⁷¹Peter Gillins, "Sheela Returns," *United Press International*, 6 February 1986.

⁷²Guru's disciples accused of "hit squad," *United Press International*, 14 September 1990.

D. SUMMARY

From the onset, there was much conflict between the Rajneesh cult and the people of Wasco County. This conflict was perceived by cult leaders as a threat to the cult's growth and survival. This paranoia led to the decision to use biological weapons against the people of the Dalles. The leaders of the cult believed that the only way to overcome these problems was to gain political control of Wasco County. By gaining control over the county, the cult felt it would be able to ensure that its agenda did not meet resistance. The cult recognized that it did not have enough cult members to win the county commissioner seats it needed during normal elections, and therefore had to find a way to increase its voting power while decreasing the county's voting power. By poisoning the people of the Dalles, it hoped to cause a low voter turn-out on election day. This desire for political control became the driving motivation behind the cult's actions.

Once the motive to use biological weapons was established, the next ingredient the cult required was the capability to use BW. It was very easy for the cult to acquire and cultivate the biological agent necessary for the attack. The basic materials required to develop its BW were in place. The financial capital of the cult was more than adequate to develop a small biological program. The equipment in the medical laboratory could easily be used to cultivate biological weapons and the training of the medical staff enabled them to cultivate its weapons.

A deranged cult such as Rajneesh is hard to stop if steps are not taken prior to its use of biological weapons. The Rajneesh cult had both the motivation and the capability

to use biological weapons. This deadly combination allowed the cult to rationalize using BW on the people of Oregon.

There were a few warning signs that the Rajneesh cult had the capacity to use biological weapons prior to contaminating the restaurants with food poisoning. The cataclysmic prophecies of Rajneesh, societal conflicts, political failure, the educational background of its members, attempted poisoning of two people, the purchase of bacteria from open sources, and the acquisition of a medical equipment having dual-use capabilities were all key indicators that this group had the intention of using WMD.

Despite these warning signs, the cult's terrorist plans went undetected. The Rajneesh cult demonstrated unusual values and displayed inconsistent reasoning, which would have made deterrence virtually impossible. If the right tools had been put into place these signals might have been identified earlier. Steps then could have been taken by law enforcement to prevent the cult from committing terrorism.

Many of the members responsible for the crimes committed by the cult have been apprehended and sentenced, while a few remain at large. The cult is no longer operating in the United States, but is still active in India under the name of Osho.

IV. COMMON CHARACTERISTICS

There are several reasons why terrorists might be tempted to utilize biological agents. In addition to the basic terrorist objective of creating fear in the general public and reaching the widest possible audience through their violent incidents, terrorists with biological agents would also be able to perpetrate their attacks more “quietly” in order to avoid detection and aid in their escape after the incident.

Jeffery D. Simon⁷³

Chapters II and III examined the motivations, values and structural characteristics of two cults that committed chemical and/or biological terrorism. This chapter demonstrates the common values and fears that motivated Aum Shinrikyo and the Rajneesh cults to develop and use chemical and/or biological agents as a terrorist weapon. These common characteristics identify warning signs that can then be used as indicators of the capabilities and intent of non-state actors to use WMD in the future.

This chapter is divided into three sections. The first discusses the common motivations and values that drove both cults to turn against the system and commit WMD terrorism. This section compares five common factors: the leaders’ influence on the cult, the impact of the cults’ religious ideologies, the perceived threat to survival that turned them against authority, the development of a self-contained communities, and the effect of an underlying political agenda. These factors identify how the values and motivations of these terrorist cults resulted in the decision to use WMD.

⁷³Jeffrey D. Simon, *The Terrorist Trap: America’s Experience with Terrorism* (Bloomington and Indianapolis: Indiana University Press, 1994), 359.

The second section describes the common structural characteristics that enabled the cults to use these weapons. This section focuses on how each cult was able to recruit an intelligent and dedicated following, build vast financial resources, and acquire the technology and materials required to develop WMD. Understanding this might give insight on ways to impede potential terrorist cults in the future from building the physical structure required to use chemical, biological, or even nuclear weapons. The final section summarizes the common motivations and characteristics of both groups identifying the warning signs of non-state actors that might use WMD in the future.

A. MOTIVATIONS AND VALUES

1. Powerful and Charismatic Leader

Both the Aum and Rajneesh cults were led by power-seeking, delusional individuals. These leaders developed the ideologies of their cults, and were responsible for all the decision making in their organizations, including the ultimate decision to use chemical and biological weapons. By establishing nearly complete control over their followers, these leaders were able to convince their followers to relinquish all of their possessions. The followers sacrificed everything for the cults and their leaders. This sacrifice supported the drive of both leaders for power, wealth and control.

In the case of Aum Shinrikyo, Asahara prophesied that Armageddon was coming and convinced his followers that they would be the world's only survivors. He bestowed his delusional beliefs on the members of his cult, and maintained control over them at all times. Asahara drugged his followers and even used torture as a tactic to dominate them.

He required members to drink his bodily fluids, and even charged them to do so.

Asahara also required members to participate in strange initiations that required followers to give up the little dignity they had left. Aum was the ultimate mastermind behind all of the cult's activities. He had final say in all of the terrorist acts of the cult.

Rajneesh, like Asahara, was also hungry for power. One example of his influence over his members was that he made all of them kiss his feet. He also convinced his followers that they could attain spiritual enlightenment through open sex. Rajneesh told members whom they could marry, and with whom they could have sexual relations. He was able to develop a large following in India and throughout the world.

When Rajneesh decided to move the cult to the United States, he enlisted Ma Anand Sheela to head the Oregon compound. She also had a thirst for power, and there were claims that she ran the commune like a "concentration camp." The fact that she was able to justify poisoning innocent people so the cult could win an election exemplifies her need for power and control.

Both cults had fanatical leaders that resorted to drastic and delusional methods to control their followers. They were able to instill their bizarre beliefs on their members, and were able to influence the desires, values, and motivations of those under them. Ultimately it was the power of these charismatic leaders that allowed them to convince their followers to go along with the plan of using chemical and biological weapons.

2. Extreme Religious Ideology and Cataclysmic Prophecies

Asahara and Rajneesh controlled the lives of their followers through their religious ideologies, and proclaimed that cataclysmic events would occur in the future. The beliefs and values of both cults were narcissistic and both cults were prepared to defend them at all costs. This allowed the cults to pursue violent means to protect their ideologies. It even justified the use of chemical and biological weapons.

The religious teachings of both groups have connections with Hinduism and Buddhism. Hinduism and Buddhism advocate meditation and yoga, which were practiced immensely by both cults. These techniques were supposed to help followers obtain a higher state of consciousness, a common theme in both cults. Both Asahara and Rajneesh claimed to have reached the ultimate level of enlightenment, and taught their followers how to do the same. Members believed that if their belief faltered they would never reach ultimate enlightenment. It was this fear that entrapped them.

In the case of Aum, Asahara chose Lord Shiva, the god of destruction, as an important deity of the cult. The destruction of the earth became an important aspect of Aum's teaching, and his prophecy that the end of the world was imminent added ideological justification to his extensive build up and use of chemical and biological weapons.

Lord Shiva did not have a large role in the Rajneesh cult. However, Rajneesh did change some of the names of his members to include variants of Shiva's name. Rajneesh did not proclaim the end of the world was coming, but did believe that cataclysmic events would occur in the future. He also proclaimed that his followers were on the right

path toward a more enlightened and better man. These beliefs gave the Rajneesh cult the ideological justification to use biological weapons.

The belief systems of both cults allowed it to control and entrap followers through the fear that they would not reach the ultimate state of enlightenment if they did not continue to follow the religious teachings of the cults. The cataclysmic prophecies enabled both cults to justify the use of violence. Once the cults were able to alter the values of members, the cults were able to pursue their objectives through horrific means.

3. Threat to Survival and Hostility Toward Authority

The Aum and Rajneesh cults believed that their existence and beliefs were threatened by society. Survival for both cults meant increasing their membership, spreading their ideology, amassing money, and building compounds to support their existence. As a result of this threat, society became the enemy of both cults. Many events occurred that caused both cults to feel threatened, triggering their passionate hostility and reinforcing their justification to use WMD.

Many events contributed to Aum's growing hostility toward society. One defining moment, discussed in chapter II, occurred when the cult failed to be elected to the Japanese Parliament. This failure cemented the cult's dissatisfaction with society. It was at this point that the cult turned to violence. Other events, also discussed in chapter two, expanded the cult's distrust, fear, and hostility. Shuji Taguchi's lawsuit, filed on behalf of parents of cult members, attempted to remove members from the cult. This threatened the cult's recruitment and survival. The anticipated judgement that the cult might have to abandon its Matsumoto compound was yet another threat. Inflammatory

articles, such as those published by Egawa Yokohama, caused even greater tension. Finally, the cult received a tip that the police were going to raid many of its compounds. This became the ultimate and final threat that led to the cult's decision to use sarin in the Tokyo subway.

In the case of Rajneesh, conflicts occurred the moment the cult moved to Oregon. As discussed in chapter III, Oregon zoning laws prevented the cult from building freely on its ranch. This became a sore spot for the cult. Other events also fueled the hostility of the cult. Many local citizens filed lawsuits against the cult and many countersuits were also filed. State legislators called the incorporation of Rajneeshpuram unconstitutional threatening the life of the commune. In addition, the investigation into immigration fraud by the INS fed the hostility of the cult. The combination of these events, threatened the cult and therefore drove the cult to use *Salmonella Typhimurium*.

In both cases, many events were perceived as hostile acts. The cults used this hostility to justify the use of violence. Once violence was legitimized, the deranged beliefs allowed the cults to justify using weapons of mass destruction.

4. Self-Contained Communities

Both the Aum and Rajneesh cults developed self-contained communities that enabled them to hide many of their operations. They built their main compounds in isolated areas secluded from large communities. These isolated communities allowed both cults to operate freely and without scrutiny from society.

The Aum cult, as mentioned in chapter II, built compounds worldwide. These compounds were built by cult members and provided the conveniences required to

support a small town. As a result, the cult was able to operate without assistance from outside sources. This helped the cult hide its WMD operations in the compound. The isolation of the cult also allowed it to develop and impose its extreme religious ideologies on their followers.

The Rajneesh cult went a step further than Aum by having its commune incorporated as a city. Like Aum, the Rajneesh compound was built by the cult members and contained all of the amenities required to run a small town. Rajneesh went as far as building an airport on the commune. This autonomy allowed the cult to operate freely without outside influence, and thus were able to develop its WMD programs in secrecy. This isolation also allowed the cult to impose its bizarre values on its followers without a challenge.

Isolation permitted both cults to impose their bizarre ideologies and values on their followers. As a result, societal norms were replaced by delusional values and beliefs. Under complete secrecy, both cults were able to develop its chemical and/or biological arsenals. The self-contained communities of both cults empowered them develop a cohesive social and religious group that veered from societal norms and allowed them to pursue unusually violent means.

5. Underlying Political Agenda

Both the Aum and Rajneesh cults had underlying political agenda. Both cults used their extreme religious ideologies and irrational fears to justify using WMD as a means to meet their political objectives.

As discussed in chapter II, Aum's first attempt to participate in the political arena resulted in failure when Asahara and other members failed to win seats in the parliament. Following this failure the cult began to justify violence due to the believed coming of Armageddon. Asahara set up a hierarchy in his cult that paralleled the Japanese Parliament. He preached that after Armageddon, the cult would rule Japan. By pre-establishing his governmental hierarchy, Asahara would be able to step immediately in and rule Japan following the end of the world. The cult justified WMD terrorism as a way to begin Armageddon, which would allow the cult to take its rightful place as leaders of Japan.

The Rajneesh cult, as discussed in chapter III, felt persecuted by the people of Wasco County. The cult thought that by controlling the Wasco County Commission, it would insure its needs were met. The cult could not control the county as it did its members, so the cult decided that only way to get control was by having members on the County Commission. Since the cult did not have enough voters to win an election, it decided to use a biological weapon to temporarily inflict an illness on non-supporters to prevent them from voting. The cult's control over its members enabled it to justify using WMD because they felt its beliefs were being threatened by the people of Wasco County.

The political aspirations of the Aum and Rajneesh cults fueled their motives to use WMD. Both cults used their extreme religious ideologies to justify the use of WMD with few questions from their members.

B. STRUCTURAL CHARACTERISTICS

1. Intelligent and Dedicated Manpower

Aum and Rajneesh recruited young and intelligent people from many different countries. A small handful of their members eventually became trusted advisors and leaders who were responsible for developing the arsenals and carrying out the terrorism. The common follower, on the other hand, was not privy to the major plans and details of the terrorist activities.

Aum recruited highly educated people with degrees specializing in physics, science, medicine, chemistry, and computers. From this group, Asahara selected a close inner circle to assist him with the overall operation of the cult. This group was responsible for carrying out the policies of Asahara, which included recruitment, torture, and murder. They were also responsible for the development and delivery of the cult's chemical and biological weapons. The other members, or the common followers carried out the normal daily operations, and served as a source of labor and money for the cult.

Rajneesh did not focus recruitment on only those with technical degrees, but many of his followers did have some sort of college training. From this group, he selected a handful of advisors. Many of his followers held business degrees and accounting degrees, which was critical for running the businesses of the cult. The cult also recruited a small number of nurses and doctors to work in the medical clinic. As mentioned previously, Sheela was given broad control of the cult in Oregon and also established her own trusted staff. One such advisor was Nurse Puja. Sheela and Puja were responsible for carrying out the terrorism of the cult. The role of Sheela's other

advisors in the terrorism campaigns is unclear; however, they were responsible for committing some of the crimes for the cult mentioned in chapter III. The common followers, as with Aum were a source of labor and money for the cult and had no knowledge of the terrorism plans.

In both cases, the ability of the cults to establish the knowledge base required to develop their WMD programs rested in their recruitment of young and smart individuals with technical degrees. Despite the common followers limited knowledge of the cult's terrorist activities, their labor was critical in building the structural network required to develop the weapon programs.

2. Vast Financial Resources

The financial resources of the Aum and Rajneesh cults were enormous and provided them with more financial capital than required to develop their arsenals. They were able to accumulate their assets from donations, business ventures, and low labor costs. They were also able to take advantage of tax breaks given to religious organizations.

In the case of the Aum, cult members were forced to relinquish not only their assets but the assets of their family members. These assets included turning over bank accounts, stocks, and even credit cards. Failure to relinquish one's assets could result in the torture, if not death, of the member or the member's family. The cult also raised money by charging members to participate in bizarre initiations. In addition, Aum established many legitimate businesses worldwide.

The Rajneesh cult also required its members to give all their possessions to the cult. Members were required to pay for lectures and training given by Rajneesh and his leaders. The cult also established several legitimate businesses, including restaurants. In some instances, members of the cults ran the businesses, keeping the labor costs of these businesses down.

Both cults used the control they had over their followers to amass enormous wealth. Once their capital bases were built, both cults were able to purchase the technology and materials necessary to support their WMD programs.

3. Easily Accessible Technology and Materials

The items required for the Aum and Rajneesh cults to develop chemical and biological programs are easily accessible. The agents required to develop chemical and biological arsenals are available on the open market. The equipment required to develop the arsenals is dual-use equipment that can be used for medical research programs. The technology and know-how required to develop weapons programs are also widely available.

The extensive WMD program developed by the Aum cult was obtainable for reasons other than availability. First, there were a large number of highly skilled and trained scientists in the cult. Second, the cult owned a large number of medical and technical businesses. The wealth of knowledge in the cult enabled the cult to develop an extensive research and development programs. Under the auspices of their businesses, Aum was able to access chemical and biological materials without suspicion.

The Rajneesh cult's biological program was much smaller and less technologically advanced than that of the Aum. The Rajneesh cult developed its small biological program under the cover of a medical clinic. The cult was able to purchase the bacteria required for its program through open sources available to medical laboratories. The nurse in charge of the medical clinic, Ma Anand Puja, had sufficient laboratory training to culture the food poisoning. As a result, the cult developed a simple form of food poisoning. At one point, however, the Rajneesh cult did contemplate using the AIDS virus. Voter manipulation was their goal, not murder, so it decided against using the AIDS virus.

Both cults were able to develop chemical and biological programs due to the limited barriers of accessing the technology and materials required for these programs. The Rajneesh cult did not benefit from the technological advances that were available to the Aum cult, but the technology available was sufficient for its biological program. As a result, the development of both cults WMD programs did not trigger any alarms.

C. SUMMARY

Asahara and Rajneesh used the power they gained through their religious ideologies to control their followers and promote their deranged values. Both cults brainwashed their followers to unquestionably accept and believe in their bizarre values. Once followers were trapped in the ideology, the cults would claim that resistance to the cult by anyone was a threat to its survival. The cults then used these threats to legitimize their hatred toward authority and build a consensus within the cult to fight this threat.

These threats, along with the ideologies both cults taught were the driving motivation behind the cults decisions to resort to WMD terrorism.

The ability of the cults to perform this type of terrorism depended on recruiting the right manpower, financial capital, and materials required for WMD. The leaders of both cults recruited many people, but only selected a handful of dedicated and intelligent people to be their close advisors; these were the individuals responsible for the WMD atrocities. The cults were also able to establish huge financial resources which made acquisition of their weapons programs easy. Finally, the technology and materials required to make chemical and biological weapons were readily available to both cults. The motivations that drove the cults to use chemical or biological weapons, along with their capability to do so, left them with what they perceived to be no option other than striking society to ensure their survival.

The terrorist acts of the Aum Shinrikyo and Rajneesh cults surprised the world. Despite this surprise, there were numerous indications that these cults had the capacity to use WMD. If someone had been watching, they might have noticed the warning signals, giving authorities the ability to stop the cults before they acted. The Aum cult demonstrated many more signals of its intentions than the Rajneesh cult, but both cults did exhibit many of the same signals.

Indicators for both groups showed that they had the intention of committing WMD terrorism. Both cults proclaimed apocalyptic or cataclysmic prophecies and had numerous conflicts with the community which signaled violent tendencies. Other warning signs included the educational background of its members, the attempted

assassination of numerous people, the purchase of materials required to make WMD from commercial sources, and the acquisition of equipment with dual-uses.

The Aum cult developed a large WMD program which demonstrated obvious warning signs. The cult developed large research and development capabilities in Japan and Australia. It was at these locations the cult tested the chemical and biological weapons it intended on using. As a result, odors and residue were persistent in the area. The cult had also committed a large sarin attack in Matsumoto prior to the attack on the Tokyo subway. Finally, the cult purchased hundreds of gas masks from California just prior its terrorist attack.

The Aum and Rajneesh cults displayed warning signs that they had the intention to use WMD. However, both cults held bizarre values and displayed unpredictable logic, making deterrence difficult. If the right devices had been in place, their intentions might have been recognized, giving authorities the ability to stop them prior to their terrorist acts. Chapter V recommends policies the United States should pursue based on these indicators to prevent WMD terrorism in the future.

V. FORMULA FOR DETERRING WMD TERRORISM

Deterrence is never simple, and deterring adversaries whose values and risk taking propensities are imperfectly understood is problematic.

Martha Crenshaw⁷⁴

To prevent or deter WMD terrorism, the United States should make a fundamental shift in its approach to combating terrorism. To deter WMD terrorism, U.S. policy should focus not only on responding to terrorist threats, but also on influencing the motivation to commit terrorism. However, influencing the motivation of a non-state actor with a bizarre value system and potentially irrational thinking could prove to be difficult. Therefore, deterrence could prove to be problematic and not very effective.

Thus, the United States should focus on preventing WMD terrorism from occurring in the first place. Policies should focus on identifying non-state actors that demonstrate the intention of using WMD. Identifying non-state actors that pose a threat is key to stopping non-state actors from resorting to WMD terrorism. Once potential terrorist groups are identified, legal measures then could be taken to stop them from striking.

This chapter discusses policy implications drawn from the case studies of the Aum Shinrikyo and Rajneesh cults and the findings of chapter IV. This chapter is divided into three sections. The first reviews the current efforts and responsibilities dealing with WMD terrorism. The second section outlines specific policy options the

⁷⁴Crenshaw, "Theories of Terrorism," 19.

United State should pursue to prevent WMD terrorism in the future. The final section provides a summary of the findings of this thesis.

A. CURRENT EFFORTS

Current counterterrorism policy focuses on trying to "deter, defeat, and respond vigorously to terrorist attacks on our territory, against out citizens and facilities, whether those attacks occur domestically or whether they occur on foreign territory."⁷⁵ These policies are carried out by the Federal Bureau of Investigation (FBI), the U.S. Department of State, and the Federal Emergency Management Agency (FEMA).

Presidential Decision Directive 39 (PDD 39), issued by President Clinton on 21 June 1995, made combating WMD terrorism a high priority.⁷⁶ This directive established a coordinated Federal response to terrorism by dividing responses into two areas: Crisis Management Response and Consequence Management Response. Crisis Management Response involves the investigation, capture, and prosecution of terrorists. This directive appointed the FBI as responsible for responding to terrorism inside the United States and the State Department responsible for responding to terrorism outside the United States. Consequence Management Response involves federal support of state and local

⁷⁵Comments made by Michael Jakub, Director of Special Projects, Office of the Coordination for Counterterrorism, U.S. Department of State during 7 December 1995 Congressional Research Seminar, Permanent Select Committee on Intelligence U.S. House of Representatives. *Terrorism - Looking Ahead: Issues and Options for Congress* (Washington, D.C.: U.S. GPO, 1996), 2.

⁷⁶"Staff Statement, U.S. Senate Permanent Subcommittee on Investigation,' *Hearings on Global Proliferation of Weapons of Mass Destruction: Response to Domestic Terrorism* (Washington, D.C.: U.S. GPO, 1996), 24-25.

governments in preparing for and managing the consequences of WMD terrorism. FEMA was identified as the lead agency to prepare and manage the consequences following an attack.

President Clinton signed the “Antiterrorism and Effective Death Penalty Act of 1996” on 24 April 1996.⁷⁷ This measure strengthened the legal posture of the United States in dealing with terrorism. It allows the United States to deport terrorists or stop their entry into the United States. In addition, it authorizes fines and possibly the death penalty if terrorists violate the law. This measure also directed the Center for Disease Control (CDC) to identify hazardous biological agents, to create procedures to monitor the distribution of these agents, and to alert authorities when an improper attempt is made to acquire a restricted agent.⁷⁸

Despite counterterrorism efforts of the past, groups such as Rajneesh and Aum went unnoticed until after they committed terrorist attacks. The deadly consequences of WMD terrorism make deterrence a necessity, and therefore policies must address more preventive measures. Future policies should focus on ways of identifying and targeting non-state actors that demonstrate the intention of using WMD. Once identified, actions can be taken to stop non-state actors from committing WMD terrorism.

⁷⁷*Antiterrorism and Effective Death Penalty Act of 1996*, Public Law No. 104-132, 24 April 1996.

⁷⁸U.S. Department of Health and Human Services, Centers for Disease Control and Prevention. Additional Requirements for Facilities Transferring or Receiving Select Agents: Final Rule, *Federal Register* (Washington, D.C.: U.S. GPO, 24 October 1996), 61:55190.

B. FUTURE POLICIES

In order to deter future WMD terrorist attacks, the United States should develop better monitoring capabilities and coordinate information systems to identify terrorists with the potential to use WMD. Although identifying deranged groups with irrational ideals that decide to use WMD might not be possible in every case, the attempt still should be made. By developing a sophisticated means of monitoring and tracking the characteristics of terrorists demonstrating the intent to commit WMD terrorism, the United State might be able to more easily identify non-state actors that generate extensive WMD capabilities.

Future policies of the United States should focus on developing an integrated data system to identify and observe non-state actors that have apocalyptic or cataclysmic prophecies, are confrontational with local authorities, and recruit people with advanced degrees. Polices should also focus on monitoring the purchases of materials connected with chemical or biological weapons and identifying groups that access information about WMD. Finally, the United States should develop methods for detecting WMD use during research and development stages.

1. Develop an Integrated Database

The United States should develop a database potential terrorist groups that can be added to by local law enforcement agencies, local government agencies, all federal agencies, and all intelligence agencies. The database should be designed to sort out groups that fit the characteristics listed below. The FBI, the State Department, the

Central Intelligence Agency (CIA), and the Department of Defense (DOD) should have access to this information.

2. Identify Non-State Actors with Apocalyptic or Cataclysmic Prophecies

Both non-state actors studied in this thesis prophecized apocalyptic or cataclysmic events would occur in the future. These prophecies provided an ideological justification for WMD terrorism. Future groups with prophetic visions might turn to WMD terrorism, and therefor should be identified. To do this, all intelligence organizations must inspect the propaganda non-state actors proclaim through ads, fliers, and the Internet. Groups demonstrating these characteristics should be added to the integrated database.

3. Observe Non-State Actors that Confront Local Authorities

This thesis identified two non-state actors with political agendas who became confrontational with the local population and authorities. These confrontations involved land disputes, harassment issues, and immigration issues, and as a result, both groups resorted to violence as a means to deal with these problems. Also, in both cases, the non-state actors attempted assassinations using WMD.

Future groups that demonstrate these attributes should be identified. Local police should watch the complaints of local citizens and identify groups that demonstrate or attract hostility. The local court systems could pay particular attention to groups that file repetitive claims or frequent lawsuits, paying particular attention to disputes dealing with conflicts over land issues or having political undertones. Groups demonstrating these profiles should be added to the database.

4. Identify Non-State Actors that Recruit People with Advanced Degrees

Both the Aum Shinrikyo and Rajneesh cults recruited people with advanced degrees in science, physics, and medicine. This knowledge allowed both cults to develop its WMD programs with some success. Non-state actors that intend on developing and using WMD in the future might recruit the same caliber of people. The FBI and local law enforcement agencies should pay particular attention to groups that recruit at college campuses, technical business, and at bookstores. Groups that recruit at these locations also should be added to the integrated database.

5. Watch Purchases of Materials Connected with Chemical or Biological Weapons

Both cults examined in this thesis purchased the materials required to develop a BW or CW program from commercial sources. Non-state actors that desire BW or CW in the future must also purchase the same materials. Therefore, a tracking system should be developed to monitor these acquisitions. The purchase of dual-use equipment, chemical precursors, pathogens or toxins used for biological weapons, protection equipment⁷⁹, and potential delivery systems⁸⁰ should be monitored and tracked. Companies also should be required to report these transactions to the CDC. The CDC should then log these transactions in the integrated databank.

⁷⁹Protection equipment includes items such as gas masks, protective suits, and antidotes.

⁸⁰Potential delivery systems include items such as agriculture sprayers and aircraft with crop dusting capabilities.

6. Monitor Internet Sights Containing Information on WMD

The technology required to develop effective WMD programs was easily accessible in the case of the Aum and Rajneesh cults. Today, the information age and unlimited access to the Internet have allowed the proliferation of technology to be accessible to almost anyone with a computer. Intelligence communities should develop ways to monitor who is accessing Internet sights that divulge this information and supply these findings to all intelligence communities. Intelligence communities could identify or develop dummy sights that can be monitored. Groups that access these sights should then be added to the integrated database. Identifying who visits these sights might give indications of non-state actors serious about WMD development.

7. Develop Methods for Detecting WMD use During R&D Stages

Aum Shinrikyo developed extensive research and development programs in both Australia and Japan that released chemical and biological residues into the air. Due to the current limitations of technology, associated with chemical and biological agent detection, these residues went undetected. Sensors and Satellite systems should be developed that detect biological or chemical contamination. These systems could then be used to detect non-state actors, such as Aum, that test their WMD programs prior to using them as weapons. Investigations into these detections could lead to the discovery of non-state actors intending to use WMD.

C. SUMMARY

The problem of WMD terrorism is here to stay. The ability of terrorist groups to acquire and use WMD has been proven in the past; however delivery methods have been inadequate and, as a result, the casualty rates have been low. The danger lies in the future. As technology and information on chemical and biological weapons proliferate, the chances of a terrorist group developing an effective means of delivery are likely to increase. The consequences of this could be devastating, producing casualties and damage never seen before.

Deterring terrorists from committing WMD terrorism would be ideal, but given the bizarre value systems and unpredictable logic of many terrorist groups, this could prove futile. The United States instead should seek to prevent terrorists from committing WMD terrorism by denying them the ability to act. Identifying terrorists that have the potential to use WMD is critical. Therefore, better monitoring capabilities and coordinated information systems should be established to identify non-state actors that demonstrate the intention of using WMD. By identifying intent of terrorists to use WMD, the United States then can have a better chance of intervening and preventing WMD terrorism.

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